Substituted Pyrimidinones

Background

5 This application claims priority to US Provisional application 60/460,124, filed April 3, 2003.

Field

This invention relates to substituted pyrimidinones that are useful for treating diseases and conditions caused or exacerbated by unregulated p38 MAP kinase activity. It also relates to Pharmaceutical compositions containing the pyrimidinone compounds, methods of preparing the pyrimidinone compounds and methods of treatment using these compounds.

Numerous cell surface receptors use one or more of the.

15

10

Description of the Related Art

mitogen-activated protein kinase (MAP kinase) cascades during signal transduction. MAP kinases are a family of protein-20 directed serine/threonine kinases that are activated by dual phosphorylation. One subgroup of the MAP kinases is p38 MAP kinase, which is activated by a variety of signals including proinflammatory cytokines such as tumor necrosis factor (TNF) and interleukin-1 (IL-1), as well as bacterial 25 lipopolysaccharides and environmental stress such as osmotic shock and ultraviolet radiation (Ono, K. and J. Han, Cell Signal. 12: 1, 2000). Within the p38 kinase family, there are four distinct isozymes: p38 alpha, p38 beta, p38 gamma, and p38 delta. The p38 kinase family function downstream of an 30 activating stimulus by phosphorylating and activating transcription factors (e.g. ATF2, CHOP and MEF2C) as well as other kinases (e.g. MAPKAP-2 and MAPKAP-3) (Trends in Cell biology 7, 353-361, 1997; Mol Cell Biology 19, 21-30, 1999; EMBO J 20, 466-479, 2001) Upon activation, the p38 kinase

15

20

cascade leads to the induction of gene expression of several factors involved in inflammation and immunity including TNF, interleukin-6, granulocyte-macrophage colony stimulating factor (GM-CSF), and HIV long terminal repeat (Paul et al., Cell Signal. 9: 403-410, 1997). The products of the p38 phosphorylation stimulate the production of inflammatory cytokines and other proteins, including TNF and IL-1, and cyclooxygenase-2, and also possibly modulate the effects of these cytokines on their target cells, and thus stimulate inflammation processes (Lee, J.C. et al, Nature, 372: 376, 1994).

P38 MAP kinases have also been shown to promote apoptosis during ischemia in cardiac myocytes, which suggests that p38 MAP kinase inhibitors can be used to treat ischemic heart disease (J. Biol. Chem. 274, 6272, 1999). They are also required for T-cell HIV-1 replication and may be useful targets for AIDS therapy. P38 pathway inhibitors have been used to increase cancer cell sensitivity to cancer therapy also find use in the treatment of asthma (JPET 293, 281, 2000).

TNF is a cytokine and a potent proinflammatory mediator implicated in inflammatory conditions such as arthritis, asthma, septic shock, non-insulin dependent diabetes mellitus, multiple sclerosis, asthma, and inflammatory bowel disease. 25 inhibitors of p38 MAP kinases (required for production) may be useful for the treatment of inflammatory conditions resulting from excessive cytokine production such as arthritis. (Boehm, J.C. and J.L. Adams, Exp. Opin. Ther. Patents 10: 25, 2000, and references cited therein). TNF has also been implicated in viral infections, 30 such as influenza virus, and herpes virus including herpes simplex virus type-1 (HSV-1), herpes simplex virus type-2 (HSV-2), cytomegalovirus (CMV), varicella-zoster virus (VZV), Epstein-

25

30

Barr virus, human herpesvirus-6 (HHV-6), human herpesvirus-7 (HHV-7), human herpesvirus-8 (HHV-8), pseudorabies and rhinotracheitis, among others.

Excessive or unregulated TNF production has also been shown to produce elevated levels of IL-1. Inhibition of TNF, therefore, should reduce levels of IL-1 (European Cytokine Netw 6, 225, 1995) and ameliorate disease states caused by Such disease states include unregulated IL-1 synthesis. rheumatoid arthritis, rheumatoid spondylitis, osteoarthritis, 10 gouty arthritis, sepsis, septic shock, endotoxic shock, gram negative sepsis, toxic shock syndrome, adult respiratory distress syndrome, cerebral malaria, chronic pulmonary inflammatory disease, silicosis, pulmonary sarcosis, resorption diseases, reperfusion injury, graft versus host reaction, alallograft rejections, fever and myalgias due to 15 infection, cachexia secondary to infection or malignancy, cachexia secondary to acquired immune deficiency syndrome (AIDS), AIDS related complex (ARC), keloid formation, scar tissue formation, Crohn's disease, ulcerative colitis, 20 pyresis.

IL-1 has also been shown to mediate a variety of biological activities such as the activation of T-helper cells, induction of fever, stimulation of prostaglandin or production, neutrophil chemotaxis, collagenase suppression of plasma iron levels (Rev. Infect. Disease, 6, 51 (1984)). Elevated levels of IL-1 have also been implicated in mediating or exacerbating a number of disease states including rheumatoid arthritis, osteoarthritis, rheumatoid spondylitis, gouty arthritis, inflammatory bowel disease, adult respiratory distress syndrome (ARDS), psoriasis, Crohn's ulcerative colitis, anaphylaxis, muscle degeneration, cachexia, Reiter's syndrome, type I and type II diabetes, bone ischemia resorption diseases, reperfusion

arteriosclerosis, brain trauma, multiple sclerosis, sepsis, septic shock, and toxic shock syndrome. Viruses sensitive to TNF inhibition, such as HIV-1, HIV-2, HIV-3, are also affected by IL-1 production. In rheumatoid arthritis, both IL-1 and TNF induce collagenase synthesis and ultimately lead to tissue destruction within arthritic joints (Lymphokine Cytokine Res. (11): 253-256, (1992) and Clin. Exp. Immunol. 989:244-250, (1992)).

IL-6 is another pro-inflammatory cytokine, which is associated with many conditions including inflammation. Consequently, TNF, IL-1 and IL-6 affect a wide variety of cells and tissues and are important inflammatory mediators of a wide variety of disease states and conditions. The inhibition of these cytokines by inhibition or modulation of p38 kinase is of benefit in controlling, reducing and alleviating many of these disease states and conditions. Therefore, the invention concerns finding small molecule inhibitors or modulators of p38 kinase and the p38 kinase pathway.

20

Summary

In a broad aspect, the invention provides compounds of Formula I (Embodiment I):

$$\begin{array}{c|c}
R_2 \\
R_4 \\
R_5
\end{array}$$

5

10

15

20

25

and pharmaceutically acceptable salts thereof, wherein

R₁ is H, halogen, NO₂, alkyl, carboxaldehyde, hydroxyalkyl, dihydroxyalkyl, arylalkoxy, arylalkyl, alkenyl, alkynyl, arylalkynyl, -CN, aryl, alkanoyl, alkoxy, alkoxyalkyl,

haloalkyl, haloalkoxy, carboxyl, or arylalkanoyl,

wherein the aryl portion of arylalkoxy, arylalkyl, and arylalkanoyl is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, C_1 - C_4 alkyl, C_1 - C_4 alkoxy, nitro, CN, haloalkyl, haloalkoxy or CO_2R ;

wherein the alkyl portion of the alkyl, hydroxyalkyl, dihydroxyalkyl, arylalkoxy, arylalkyl, alkanoyl, alkoxy, alkoxyalkyl and arylalkanoyl groups is unsubstituted or substituted with 1, 2, or 3 groups that are independently halogen, C₁-C₄ alkoxy, C₁-C₄ alkoxycarbonyl, or C₃-C₇ cycloalkyl;

halogen, $-OSO_2-(C_1-C_6)$ alkyl, $-OSO_2$ -aryl, R_2 is Η, OH, arylthio, arylthioalkoxy, arylalkoxy, aryloxy, arylalkynyl, alkoxy, aryloxy(C₁-C₆)alkyl, alkyl, alkynyl, -OC(O)NH(CH₂)_naryl, -OC(O)N(alkyl)(CH₂)_naryl, alkoxyalkoxy, dialkylamino, alkyl, alkoxy, aryl, arylalkyl, heteroaryl, heteroarylalkyl, arylalkenyl, heterocycloalkyl, heterocycloalkylalkyl, alkoxyalkoxy, NR₈R₉, dialkylamino, or CO₂R, wherein

30 n is 0, 1, 2, 3, 4, 5 or 6;

each of which groups is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, $-(C_1-C_6)$ alkyl-N(R)-CO₂R₃₀, haloalkyl, $-NR_6R_7$, heteroaryl, heteroarylalkyl, $R_6R_7N - (C_1 - C_6)$ 5 alkyl)-, -C(0) NR_6R_7 , -(C_1 - C_4) alkyl-C(0) NR_6R_7 , -(C_1 - C_4 alkyl)-NRC(O)NR₁₆R₁₇, haloalkoxy, alkyl, CN, hydroxyalkyl, dihydroxyalkyl, alkoxy, alkoxycarbonyl, phenyl, -SO₂-phenyl wherein phenyl and -SO₂-phenyl groups are optionally substituted with 1, 2, or 3 groups that 10 independently halogen or NO₂, or -OC(O)NR₆R₇, wherein R₁₆ and R₁₇ are independently H or C₁-C₆ alkyl; or R_{16} , R_{17} and the nitrogen to which they are attached form a morpholinyl ring; 15 R_6 and R_7 are independently at each occurrence H, alkyl, hydroxyalkyl, dihydroxyalkyl, alkoxy, alkanoyl, arylalkyl, arylalkoxy, alkoxycarbonyl, -SO₂-alkyl, OH, alkoxy, alkoxyalkyl, arylalkoxycarbonyl, $-(C_1-C_4)$ alkyl-20 CO₂-alkyl, heteroarylalkyl, or arylalkanoyl, wherein each is unsubstituted or substituted with 1, 2, or 3 groups that are independently, halogen, OH, SH, heterocycloalkyl, heterocycloalkylalkyl, C3-C7 cycloalkyl, alkoxy, 25 NH₂, NH(alkyl), N(alkyl)(alkyl), -O-alkanoyl, alkyl, haloalkyl, carboxaldehyde, haloalkoxy; or R_6 , R_7 , and the nitrogen to which they are attached a morpholinyl, form pyrrolidinyl, 30 thiomorpholinyl, thiomorpholinyl S-oxide, thiomorpholinyl S,S-dioxide, piperidinyl, pyrrolidinyl, or piperazinyl ring which is

optionally substituted with 1 or 2 groups that

	ā	are independently C_1 - C_4 alkyl, alkoxycarbonyl,
	C	C_1-C_4 alkoxy, hydroxyl, hydroxyalkyl,
	Ċ	dihydroxyalkyl, or halogen;
	R at e	each occurrence is independently hydrogen or C_1 -
5	C	${f C}_6$ alkyl optionally substituted with 1 or 2
	. 9	groups that are independently OH, SH, halogen,
	ā	amino, monoalkylamino, dialkylamino or C_3 - C_6
	C	cycloalkyl;
	R_{30} is	$C_1\text{-}C_6$ alkyl optionally substituted with 1 or 2
10	9	groups that are independently OH, SH, halogen,
	ā	amino, monoalkylamino, dialkylamino or C_3 - C_6
	C	cycloalkyl;
	each	R_8 is independently hydrogen, alkyl, alkanoyl,
	ā	arylalkyl and arylalkanoyl, wherein each of the
15	ā	above is optionally substituted with 1, 2, 3,
		, or 5 groups that are independently alkyl,
	ā	alkoxy, alkoxycarbonyl, halogen, or haloalkyl;
	each	R_9 is hydrogen, alkyl, alkanoyl, arylalkyl,
	C	cycloalkyl, cycloalkylalkyl, alkenyl,
20	ŀ	neteroaryl, aminoalkyl, monoalkylaminoalkyl,
	Ċ	$Sialkylaminoalkyl$, $arylalkanoyl$, $-SO_2$ -phenyl,
		and aryl wherein each of the above is
		optionally substituted with 1, 2, 3, 4, or 5
	<u>9</u>	groups that are independently alkyl, alkoxy,
25		alkoxycarbonyl, halogen, or haloalkyl;
		or R_4 is alkyl unsubstituted or substituted with
		groups that are independently CO_2R , $-CO_2$ -(C_1 -
	_	$-C(O)NR_6R_7$, $-C(O)R_6$, $-N(R_{30})C(O)NR_{16}R_{17}$, $-$
		(C_1-C_6) alkoxy, or $-NR_6R_7$, arylalkoxy, arylalkyl,
30	_	heteroarylalkyl, hydroxyalkyl,
		kyl, haloalkyl, $R_6R_7N-(C_1-C_6 \text{ alkyl})-$, $-NR_6R_7$,
		droxyalkoxy-, (R_6R_7N) -alkoxy-, $R_6R_7NC(0)$ -alkoxy-,
	$R_6C(O)N(R_7)$	alkoxy-, carboxaldehyde, -C(O) NR_6R_7 , CO_2R ,

alkoxyalkyl, or alkoxyalkoxy, wherein the heteroaryl or aryl portions of is the above are unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, hydroxy, alkoxy, alkyl, -CO₂-(C₁- C_6) alkyl, $-CONR_6R_7$, $-NR_6R_7$, $R_6R_7N-(C_1-C_6)$ alkyl-, nitro, 5 haloalkyl, or haloalkoxy; and R₅ is H, aryl, arylalkyl, arylthioalkyl, alkyl optionally substituted with 1, 2, or 3 groups that are independently arylalkoxycarbonyl, $-NR_8R_9$, halogen, $-C(O)NR_8R_9$, alkoxycarbonyl, C_3-C_7 cycloalkyl, or alkanoyl, alkoxy, 10 alkoxyalkyl optionally substituted with trimethylsilyl amino, group, alkoxycarbonyl, hydroxyalkyl, dihydroxyalkyl, alkynyl, -SO₂-alkyl, alkoxy optionally substituted with one trimethylsilyl group, 15 heterocycloalkylalkyl, cycloalkyl, cycloalkylalkyl, alkyl-S-aryl, -alkyl-SO₂-aryl, heteroarylalkyl, heterocycloalkyl, heteroaryl, or alkenyl optionally substituted with alkoxycarbonyl, wherein each of the above is unsubstituted or substituted with 1, 20 2, 3, 4, or 5 groups that are independently alkyl, halogen, alkoxy, hydroxyalkyl, dihydroxyalkyl, thioalkoxy, arylalkoxy, alkoxycarbonyl, arylalkoxycarbonyl, CO_2R , CN, OH, hydroxyalkyl, dihydroxyalkyl, amidinooxime, -NR₆R₇, -NR₈R₉, R₆R₇N-25 $(C_1-C_6 \text{ alkyl})$ -, carboxaldehyde, SO_2 alkyl, -SO₂H, -SO₂NR₆R₇, alkanoyl wherein the alkyl portion is optionally substituted with OH, halogen or alkoxy, $-(C_1-C_4)$ alkyl) $-C(0)NR_6R_{7}$ $-C(O)NR_6R_7$, amidino, haloalkyl, $-(C_1-C_4)$ alkyl) $-NR_{15}C(O)NR_{16}R_{17}$, $-(C_1-C_4)$ 30 alkyl)- $NR_{15}C(O)R_{18}$, -O- CH_2 -O, -O- CH_2CH_2 -O-, orhaloalkoxy; wherein

 R_{15} is H or C_1 - C_6 alkyl; and

 R_{18} is C_1 - C_6 alkyl optionally substituted with -O-(C_2 - C_6 alkanoyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 dihydroxyalkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkoxy, C_1 - C_6 alkyl, amino C_1 - C_6 alkyl, mono or dialkylamino C_1 - C_6 alkyl.

5

10

15

20

The invention also includes intermediates that are useful in making the compounds of the invention.

The compounds and salts of the invention bind and/or interact with p38 kinase and/or TNF. Preferably, they inhibit the activity of p38 kinase and/or TNF. They are therefore used in treating p38 map kinase or TNF mediated disorders. Preferably they are used in treating p38 alpha or TNF mediated disorders.

The invention also includes pharmaceutical compositions comprising at least one compound or salt of formula I and at least one pharmaceutically acceptable carrier, solvent, adjuvant or excipient.

The invention also includes methods of treating a TNF mediated disorder, a p38 kinase mediated disorder, inflammation and/or arthritis in a subject, the method comprising treating a subject having or susceptible to such disorder or condition with a therapeutically-effective amount of a compound or salt of Formula I.

Detailed Description

In a preferred aspect, the invention provides compounds of formula I wherein:

no more than two of R_1 , R_2 , R_4 , and R_5 are simultaneously hydrogen;

 R_6 and R_7 are not simultaneously OH;

when R_2 is OH, R_4 is methyl and R_5 is phenyl, R_1 is not acetyl; and

 $R_{4}\ \text{and}\ R_{5}\ \text{are not simultaneously hydrogen.}$

10

5

In other aspects and embodiments, the invention provides: Embodiment 2. Compounds of the formula:

$$\begin{array}{c|c}
R_2 \\
R_4 \\
R_5
\end{array}$$

and the pharmaceutically acceptable salts thereof, wherein

- 15 R₁ is H, halogen, alkyl, carboxaldehyde, hydroxyalkyl, dihydroxyalkyl, arylalkoxy, arylalkyl, alkenyl, alkynyl, arylalkynyl, CN, alkanoyl, alkoxy, alkoxyalkyl, haloalkyl, carboxyl, or arylalkanoyl,
- wherein the aryl portion of arylalkoxy, arylalkyl, and arylalkanoyl is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, C_1 - C_4 alkyl, C_1 - C_4 alkoxy, nitro, CN, haloalkyl, haloalkoxy or CO_2R ;
- wherein the alkyl portion of the alkyl, hydroxyalkyl,

 dihydroxyalkyl, arylalkoxy, arylalkyl, alkanoyl,

 alkoxy, alkoxyalkyl and arylalkanoyl groups is

 unsubstituted or substituted with 1, 2, or 3 groups

 that are independently halogen, C₁-C₄ alkoxy, C₁-C₄

 alkoxycarbonyl, or cyclopropyl;

 R_2 Η, OH, halogen, $-0SO_2-(C_1-C_6)$ alkyl, $-0SO_2$ -aryl, arylalkoxy, aryloxy, arylthioalkoxy, arylalkynyl, alkoxy, phenyloxy (C_1-C_6) alkyl, -OC(0)NH(CH₂)_naryl,-OC(O)N(alkyl)(CH₂)_naryl, alkyl, alkynyl, alkoxyalkoxy, dialkylamino, heteroaryl, heterocycloalkyl, aryloxyalkyl, 5 or CO₂R, wherein each of the above is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, -NR₆R₇, haloalkyl, haloalkoxy, alkyl, heteroaryl, heteroarylalkyl, $-(C_1-C_4)$ alkyl-C(0) NR₆R₇, R₆R₇N- (C_1-C_6) 10 $alkyl) - C(0)NR_6R_7$, $-(C_1-C_4 alkyl)-NRC(0)NR_{16}R_{17}$, CN, hydroxyalkyl, dihydroxyalkyl, $-OC(0)NR_6R_7$, or $-(C_1-C_1-C_2)$ C_6) alkyl-N(R)- CO_2R_{30} , wherein R_{16} and R_{17} are independently H or C_1 - C_6 alkyl; or R_{16} , R_{17} and the nitrogen to which they are attached 15 form a morpholinyl ring; R_6 and R_7 are independently at each occurrence H, alkyl, hydroxyalkyl, dihydroxyalkyl, alkoxy, alkoxyalkyl, alkanoyl, arylalkyl, arylalkoxy, 20 arylalkoxycarbonyl, or arylalkanoyl, wherein of above unsubstituted each the is substituted with 1, 2, or 3 groups that are independently, halogen, alkoxy, alkyl, OH, SH, carboxaldehyde, haloalkyl, or haloalkoxy; or R_6 , R_7 , and the nitrogen to which they are attached 25 form morpholinyl, thiomorpholinyl, thiomorpholinyl S-oxide, thiomorpholinyl S,Sdioxide, piperidinyl, pyrrolidinyl, or piperazinyl which is optionally ring 30 substituted with 1 or 2 groups that independently C_1-C_4 alkyl, alkoxycarbonyl, hydroxyl, hydroxyalkyl, dihydroxyalkyl,

halogen;

5

n is 0, 1, 2, 3, 4, 5 or 6;

- R at each occurrence is independently H or C_1 - C_6 alkyl optionally substituted with 1 or 2 groups that are independently OH, SH, halogen, amino, monoalkylamino, dialkylamino or C_3 - C_6 cycloalkyl;
- R_{30} is $C_1\text{-}C_6$ alkyl optionally substituted with 1 or 2 groups that are independently OH, SH, halogen, amino, monoalkylamino, dialkylamino or $C_3\text{-}C_6$ cycloalkyl;
- 10 R₄ is H, alkyl optionally substituted with one or two groups independently CO₂R, -CO₂alkyl, $-C(0)NR_6R_7$ that are $-N(R_{30})C(O)NR_{16}R_{17}$, $-N(R_{30})C(O)-(C_1-C_6)alkoxy$, -NR₆R₇, arylalkoxy, heteroaryl, arylalkyl, hydroxyalkyl, dihydroxyalkyl, haloalkyl, -NR₆R₇, $-C(O)NR_6R_7$, alkoxy, hydroxyalkoxy-, (R_6R_7N) -alkoxy-, $R_6R_7NC(0)$ -alkoxy-, 15 . $R_6C(O)N(R_7)$ alkoxy-, alkoxyalkyl, or alkoxyalkoxy, wherein the heteroaryl or aryl portions of the above are unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, hydroxy, 20 alkoxy, alkyl, $-CO_2-(C_1-C_6)$ alkyl, $-CONR_6R_7$, $R_6R_7N-(C_1-C_6)$ alkyl-, nitro, haloalkyl, or haloalkoxy; and
- R_5 is H, arylalkyl, alkyl optionally substituted with 1, 2, or 3 groups that are independently arylalkoxycarbonyl, - NR_8R_9 , halogen, $-C(O)NR_8R_9$, alkoxycarbonyl, or alkanoyl, 25 optionally substituted alkoxyalkyl with one trimethylsilyl group, alkoxycarbonyl, amino, hydroxyalkyl, dihydroxyalkyl, alkenyl optionally substituted with alkoxycarbonyl, alkynyl, -SO₂-alkyl, 30 optionally substituted with one aryl, alkoxy trimethylsilyl. heterocycloalkylalkyl, group, heteroarylalkyl, heterocycloalkyl, or heteroaryl, wherein

25

30

each of the above is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently alkyl, halogen, arylalkoxy, alkoxy, hydroxyalkyl, dihydroxyalkyl, thioalkoxy, -SO₂alkyl, 5 alkoxycarbonyl, arylalkoxycarbonyl, CO₂R, CN, amidinooxime, NR_8R_9 , $R_6R_7N-(C_1-C_6 \text{ alkyl})-$, $-C(0)NR_6R_7$, amidino, hydroxyalkyl, dihydroxyalkyl, carboxaldehyde, $-NR_6R_7$, haloalkyl, $-(C_1-C_4 \text{ alkyl})$ - $C(0) NR_6R_7$, $-(C_1-C_4 \text{ alkyl}) - CO_2R$, $-(C_1-C_4 \text{ alkyl}) - C_1-C_6$ 10 alkoxycarbonyl, $-(C_1-C_4 \text{ alkyl})-CN$, $-(C_1-C_4 \text{ alkyl}) NR_{15}C(0)R_{18}$ $-O-CH_2-O-$, $-O-CH_2CH_2-O-$, phenyl haloalkoxy; is hydrogen, alkyl, alkanoyl, arylalkyl and R_8 arylalkanoyl; alkyl, alkanoyl, arylalkyl, heteroaryl, 15 R۹ is aminoalkyl, monoalkylaminoalkyl,

Embodiment 3. Compounds according to embodiment 2 wherein

dialkylaminoalkyl, and arylalkanoyl.

 R_1 is H, halogen, alkyl optionally substituted with C_1 - C_4 alkoxycarbonyl, carboxaldehyde, hydroxyalkyl, dihydroxyalkyl, phenyl (C_1-C_6) alkoxy, phenyl (C_1-C_6) alkyl, CN, alkanoyl, alkoxy, $C_2 - C_4$ alkynyl, C₂-C₆ alkenyl optionally substituted with $C_1 - C_4$ alkoxycarbonyl, alkoxyalkyl, haloalkyl, or phenyl(C₁-C₆)alkanoyl, wherein the phenyl groups are unsubstituted substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, C_1-C_4 alkyl, C_1-C_4 alkoxy, nitro, CN, CF₃, OCF₃ or CO₂R;

wherein the alkyl groups are unsubstituted or substituted with 1, 2, or 3 groups that are independently halogen, methoxy, or ethoxy;

 R_2 is OH, phenyl(C_1 - C_6) alkoxy, phenyloxy, phenyloxy(C_1 - C_6) alkyl, phenyl (C₁-C₄) thioalkoxy, C₁-C₈ alkoxy, alkoxyalkoxy, -O- SO_2 phenyl, alkynyl, phenyl (C_2-C_4) alkynyl, alkyl, -OC(O)NH(CH₂)_nphenyl,-OC(O)N(alkyl)(CH₂)_nphenyl, dialkylamino, pyridyl, pyrimidyl, pyridazyl, pyrazolyl, 5 tetrahydroquinolinyl, imidazolyl, pyrrolyl, tetrahydroisoquinolinyl, tetrazolyl, pyrazinyl, benzimidazolyl, triazinyl, tetrahydrofuryl, piperidinyl, hexahydropyrimidinyl, thiazolyl, thienyl, or CO₂R, wherein 10 n is 0, 1, 2, 3, 4, 5 or 6; each of the above is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, haloalkyl, haloalkoxy, hydroxyalkyl, NR₆R₇, dihydroxyalkyl, alkyl, phenyl, pyridyl, piperidinyl, piperazinyl, $-(C_1-C_6)$ alkyl-N(R) $-CO_2R_{30}$, $R_6R_7N-(C_1-C_6)$ 15 $alkyl) - , -C(0) NR_6R_7, -(C_1-C_4) alkyl-C(0) NR_6R_7, -(C_1-C_4)$ alkyl)-NRC(O)NR₁₆R₁₇, or -OC(O)NR₆R₇, wherein R_6 and R_7 are independently at each occurrence H, alkyl, $(C_1 - C_4)$ hydroxyalkyl, $(C_1 - C_4)$ 20 dihydroxyalkyl, (C_1-C_4) alkoxy, (C_1-C_4) alkoxy (C_1-C_4) alkyl, (C_1-C_4) alkanoyl, phenyl (C_1-C_4) alkyl, phenyl (C_1-C_4) alkoxy, phenyl alkoxycarbonyl, or phenyl (C_1-C_4) alkanoyl, wherein each of the above is unsubstituted or substituted with 1, 2, or 3 groups that are 25 independently, halogen, OH, SH, $C_3 - C_6$ cycloalkyl, (C_1-C_4) alkoxy, (C_1-C_4) alkyl, CF_3 , carboxaldehyde, NH_2 , $NH(C_1-C_6)$ alkyl, $N(C_1 C_6$) alkyl (C_1 - C_6) alkyl, OCF₃; or 30 R₆, R₇, and the nitrogen to which they are attached morpholinyl, thiomorpholinyl; form piperidinyl, pyrrolidinyl, or piperazinyl ring which is optionally substituted with 1 or 2

groups that are independently C_1 - C_4 alkyl, hydroxy, hydroxy C_1 - C_4 alkyl, C_1 - C_4 dihydroxyalkyl, C_1 - C_4 alkoxycarbonyl, or halogen; and

5 R₄ is H, alkyl optionally substituted with one or two groups that are independently CO₂R, -CO₂alkyl, $-C(0)NR_6R_7$ $-C(O)R_6$, $-N(R_{30})C(O)NR_{16}R_{17}$, $-N(R_{30})C(O)-(C_1-C_6)$ alkoxy, or -NR₆R₇, arylalkoxy, heteroaryl, arylalkyl, hydroxyalkyl, dihydroxyalkyl, haloalkyl, $-NR_6R_7$, $-C(0)NR_6R_7$, 10 hydroxyalkoxy-, (R_6R_7N) -alkoxy-, $R_6R_7NC(0)$ -alkoxy-, $R_6C(0)N(R_7)$ alkoxy-, alkoxyalkyl, or alkoxyalkoxy, wherein heteroaryl or aryl portions of the above are the unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, hydroxy, 15 alkoxy, alkyl, $-CO_2-(C_1-C_6)$ alkyl, $-CONR_6R_7$, $-NR_6R_7$, $R_6R_7N-(C_1-C_6)$ alkyl-, nitro, haloalkyl, or haloalkoxy; and

 R_5 is phenyl(C_1 - C_6)alkyl, (C_1 - C_6)alkyl optionally substituted with 1, 2, 3, 4, or 5 groups that are independently 20 phenyl C_1-C_4 alkoxycarbonyl, $-NR_8R_9$, halogen, $-C(0)NR_8R_9$, alkoxycarbonyl, or alkanoyl, phenyl, alkoxy, alkynyl, $C_2 - C_6$ alkenyl optionally substituted with alkoxycarbonyl, indolyl, quinolinyl, isoquinolinyl, isoindolyl, dihydroindolyl, pyrazolyl, imidazolyl, indazolyl, 25 dihydroisoindolyl, indolon-2-yl, benzimidazolyl, pyridyl, imidazolidine dione, imidazolyl(C₁-C₆ pyrazolyl (C₁-C₆ alkyl), alkyl), piperidinyl (C_1-C_6) alkyl, pyrrolidinyl (C_1-C_6) alkyl, $imidazolidinyl(C_1-C_6)alkyl,$ tetrahydroisoquinolinyl(C_1-C_6) 30 C₆) alkyl, 1H-indazolyl (C₁-C₆) alkyl, dihydroindolon-2 $yl(C_1-C_6)$ alkyl), indolinyl(C_1 - C_6 alkyl), dihydrobenzimidazolyl (C1-C6 alkyl), ordihydrobenzoimidazolonyl (C₁-C₆ alkyl), pyridyl (C_1-C_6)

25

alkyl, pyridazinyl (C₁-C₆) alkyl, pyrimidinyl $(C_1 - C_6)$ alkyl, tetrahydrofuryl (C1alkyl, pyrazinyl (C_1-C_6) C_6) alkyl, naphthyl (C_1 - C_6) alkyl, morpholinyl (C_1 - C_6) alkyl, tetrahydrofuryl (C₁-C₆) alkyl, thienyl $(C_1 - C_6)$ alkyl, 5 piperazinyl (C_1-C_6) alkyl, indolyl $(C_1 - C_6)$ alkyl, quinolinyl (C_1-C_6) alkyl, isoquinolinyl(C_1-C_6) alkyl, isoindolyl(C_1 - C_6) alkyl, $dihydroindolyl(C_1-C_6)$ alkyl, $pyrazolyl(C_1-C_4)$ $imidazolyl(C_1-C_4)$ alkyl, alkyl, dihydroisoindolyl(C_1 - C_6) alkyl, indoon-2-yl(C_1 - C_6) alkyl, $indolon-2-yl(C_1-C_6)$ alkyl, or morpholinyl C_1-C_6 alkyl, 10 wherein each of the above is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently C1-C6 alkyl, halogen, C_1-C_6 alkoxy, phenyl C_1-C_6 alkoxy, C_1-C_6 15 thioalkoxy, C_1-C_6 alkoxycarbonyl, CO_2R , CN, $-SO_2(C_1 C_6$) alkyl, amidinooxime, NR_8R_9 , $-NR_6R_7$, NR_6R_7 C_1-C_6 alkyl, $-(C_1-C_4)$ alkyl-C(0) NR₆R₇, $-C(O)NR_6R_7$ amidino, $C_1 - C_4$ haloalkyl, hydroxy C₁-C₆ alkyl, C₁-C₆ dihydroxyalkyl, or C₁-C₄ haloalkoxy; wherein R_8 is hydrogen, C_1 - C_6 alkyl, C_1 - C_6 alkanoyl, phenyl 20 C_1-C_6 alkyl and phenyl C_1-C_6 alkanoyl; and R_9 is aminoalkyl, mono C_1 - C_6 alkylamino C_1 - C_6 alkyl, di C₁-C₆ alkylamino C₁-C₆ alkyl, C₁-C₆ alkyl, C₁-

Embodiment 4. Compounds according to embodiment 3, wherein

phenyl C_1-C_6 alkanoyl.

 C_6 alkanoyl, phenyl C_1 - C_6 alkyl, indazolyl, and

- R_1 is H, halogen, C_1 - C_4 alkyl optionally substituted with C_1 - C_4 alkoxycarbonyl, C_2 - C_4 alkenyl optionally substituted with C_1 - C_4 alkoxycarbonyl, C_2 - C_4 alkynyl, or carboxaldehyde;
 - R_2 is benzyloxy, OH, phenyloxy, phenyloxy(C_1 - C_6) alkyl, phenyl (C_1 - C_4) thioalkoxy, or pyridyl, wherein each of the above

is optionally substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, $-(C_1-C_6)$ alkyl-N(R)- CO_2R_{30} , NR_6R_7 , $-(C_1-C_4)$ alkyl-C(O) NR_6R_7 , (C_1-C_4) haloalkyl, -C(O) NR_6R_7 , $-(C_1-C_4)$ alkyl)-NRC(O) $NR_{16}R_{17}$, (C_1-C_4) haloalkoxy, hydroxyalkyl, C_1-C_6 dihydroxyalkyl, (C_1-C_6) alkyl, pyridyl, or $R_6R_7N-(C_1-C_6)$ alkyl)-.

Embodiment 4a. Compounds according to embodiment 4, wherein R_1 is H.

10

5

Embodiment 4b. Compounds according to embodiment 4, wherein R_1 is halogen.

Embodiment 4c. Compounds according to embodiment 4, wherein R_1 is C_1 - C_4 alkyl optionally substituted with C_1 - C_4 alkoxycarbonyl.

Embodiment 5. Compounds according to embodiment 4, wherein R₅ is indolyl, pyridyl, pyridazinyl, pyrimidinyl, indazolyl, tetrahydroquinolyl, tetrahydroisoquinolyl, pyrazolyl, quinolinyl, isoquinolinyl, 20 imidazolyl, furanyl, isoindolyl, dihydroindolyl, dihydroisoindolyl, indolon-2yl, or pyrazinyl, each of which is unsubstituted or substituted with 1, 2, 3, 4 or 5 groups that are independently C1-C4 alkyl, halogen, CF3, OCF3, -CO2CH3, C1-25 C₄ hydroxyalkyl, dihydroxyalkyl, C₁-C₄ alkoxy, -CO₂(C₁-C₅ alkyl), benzyloxy, $-NR_6R_7$, $-(C_1-C_4)$ alkyl $-C(O)NR_6R_7$, $-NR_8R_9$, NR_6R_7 -(C_1 - C_4 alkyl), -C(O) NR_6R_7 , or amidinooxime; wherein R_6 and R_7 are independently at each occurrence H, C_1 - C_4 alkyl, C₁-C₄ hydroxyalkyl, C₁-C₄ dihydroxyalkyl, C₁-C₄ alkoxy, C_1-C_4 alkoxy C_1-C_4 alkyl, C_1-C_4 alkanoyl, 30 phenyl C₁-C₄ alkyl, phenyl C₁-C₄ alkoxy, or phenyl C₁alkanoyl, wherein each is C₄ unsubstituted substituted with 1, 2, 3 groups orthat are

5

independently, halogen, OH, SH, C₃-C₆ cycloalkyl, aryl, C₁-C₄ alkoxy, C₁-C₄ alkyl, OH, CF₃, or OCF₃; or R₆, R₇, and the nitrogen to which they are attached form a morpholinyl, thiomorpholinyl, pyrrolidinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C₁-C₄ alkyl, hydroxy, hydroxy C₁-C₄ alkyl, C₁-C₄ dihydroxyalkyl, or halogen.

10 Embodiment 6. Compounds according to embodiment 5, wherein

R₅ is indolyl, pyridyl, pyrimidinyl, pyrazolyl, furanyl, indazolyl, dihydroindolyl, dihydroisoindolyl, indolon-2-yl, or pyrazinyl, each of which is unsubstituted or substituted with 1, 2, 3, or 4 groups that are independently C₁-C₄ alkyl, halogen, CF₃, OCF₃, -CO₂CH₃, C₁-C₄ hydroxyalkyl, C₁-C₄ dihydroxyalkyl, C₁-C₄ alkoxy, -CO₂(C₁-C₅ alkyl), benzyloxy, -C(O)NR₆R₇, -NR₈R₉, -(C₁-C₄)alkyl-C(O)NR₆R₇, -NR₆R₇, NR₆R₇-(C₁-C₄ alkyl)-, and amidinooxime.

Embodiment 7. Compounds according to embodiment 6, wherein

R₅ is indolyl, pyridyl, pyrimidinyl, dihydroindolyl, dihydroisoindolyl, pyrazolyl, or pyrazinyl, each of which is unsubstituted or substituted with 1, 2, 3, or 4 groups that are independently C₁-C₄ alkyl, halogen, CF₃, OCF₃, -CO₂CH₃, C₁-C₄ hydroxyalkyl, C₁-C₄ dihydroxyalkyl, C₁-C₄ alkoxy, -CO₂(C₁-C₅ alkyl), benzyloxy, -C(O)NR₆R₇, NR₈R₉, - (C₁-C₄)alkyl-C(O)NR₆R₇, -NR₆R₇, NR₆R₇-(C₁-C₄ alkyl)-, or amidinooxime; wherein

 R_6 and R_7 are independently at each occurrence H, C_1 - C_4 alkyl, C_1 - C_4 hydroxyalkyl, C_1 - C_4 dihydroxyalkyl, C_1 - C_4

5

20

alkoxy, C_1 - C_4 alkanoyl, C_1 - C_4 alkoxy C_1 - C_4 alkyl, each of which is optionally substituted with 1, 2, or 3 groups that are independently halogen, OH, SH, C_3 - C_6 cycloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 alkyl, OH, CF₃, or OCF₃.

Embodiment 8. Compounds according to embodiment 7, wherein

R₅ is indolyl, pyridyl, pyrimidinyl, dihydroindolyl, dihydroisoindolyl, pyrazolyl, or pyrazinyl, each of which is unsubstituted or substituted with 1, 2, or 3 groups that are independently C₁-C₄ alkyl, halogen, CF₃, OCF₃, C₁-C₄ hydroxyalkyl, C₁-C₄ dihydroxyalkyl, C₁-C₄ alkoxy, -C(O)NR₆R₇, -(C₁-C₄)alkyl-C(O)NR₆R₇, NR₈R₉, -NR₆R₇, or NR₆R₇-15 (C₁-C₄ alkyl)-; wherein

 R_6 and R_7 are independently at each occurrence H, C_1 - C_4 alkyl, C_1 - C_4 hydroxyalkyl, C_1 - C_4 dihydroxyalkyl, C_1 - C_4 alkanoyl, or C_1 - C_4 alkoxy, each of which is optionally substituted with 1, 2, or 3 groups that are independently halogen, OH, SH, C_3 - C_6 cycloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 alkyl, OH, CF_3 , or OCF_3 .

Embodiment 9. Compounds according to embodiment 4, wherein

25 R₅ is phenyl, phenyl(C₁-C₆)alkyl, or (C₁-C₆)alkyl, wherein
each of the above is unsubstituted or substituted with 1,
2, 3, 4, or 5 groups that are independently alkyl,
halogen, alkoxy, benzyloxy, hydroxyalkyl,
dihydroxyalkyl, thioalkoxy, -CO₂(C₁-C₅ alkyl), CO₂R,
30 CN, amidinooxime, -NR₈R₉, -NR₆R₇, R₆R₇N-(C₁-C₆ alkyl)-,
-C(O)NR₆R₇, -(C₁-C₄)alkyl-C(O)NR₆R₇, amidino, CF₃, or
OCF₃;

5

20

- R_8 is hydrogen, C_1 - C_6 alkyl, C_1 - C_6 alkanoyl, phenyl C_1 - C_6 alkyl and phenyl C_1 - C_6 alkanoyl; and
- R_9 is aminoalkyl, mono $C_1\text{-}C_6$ alkylamino $C_1\text{-}C_6$ alkyl, di $C_1\text{-}C_6$ alkylamino $C_1\text{-}C_6$ alkyl, $C_1\text{-}C_6$ alkyl, $C_1\text{-}C_6$ alkanoyl, phenyl $C_1\text{-}C_4$ alkyl, indazolyl, and phenyl $C_1\text{-}C_4$ alkanoyl.

Embodiment 10. Compounds according to embodiment 4, wherein

- - R₆ and R₇ are independently at each occurrence H, C₁-C₄ alkyl, C₁-C₄ hydroxyalkyl, C₁-C₄ dihydroxyalkyl, C₁-C₄ alkoxy, C₁-C₄ alkoxy C₁-C₄ alkyl, C₁-C₄ alkanoyl, phenyl C₁-C₄ alkyl, phenyl C₁-C₄ alkoxy, or phenyl C₁-C₄ alkanoyl, wherein each is unsubstituted or substituted with 1, 2, or 3 groups that are independently, halogen, OH, SH, C₃-C₆ cycloalkyl, C₁-C₄ alkoxy, C₁-C₄ alkyl, CF₃, or OCF₃; or
- R₆, R₇, and the nitrogen to which they are attached form a morpholinyl, thiomorpholinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C₁-C₄ alkyl, hydroxy, hydroxy C₁-C₄ alkyl, C₁-C₄ dihydroxyalkyl, or halogen;
- 30 R_8 is hydrogen, C_1 - C_6 alkyl, C_1 - C_6 alkanoyl, phenyl C_1 - C_6 alkanoyl; and
 - R_9 is aminoalkyl, mono C_1 - C_6 alkylamino C_1 - C_6 alkyl, di C_1 - C_6 alkylamino C_1 - C_6 alkyl, C_1 - C_6 alkyl, C_1 - C_6

5

alkanoyl, phenyl C_1 - C_4 alkyl, indazolyl, and phenyl C_1 - C_4 alkanoyl.

Embodiment 11. Compounds according to embodiment 10, wherein

 R_5 is phenyl, benzyl or phenethyl, wherein each is optionally substituted with 1, 2, 3, 4, or 5 groups that are independently C_1-C_6 alkyl, $-NR_6R_7$, $-C(0)NR_6R_7$, $-(C_1-C_4)$ alkyl)-C(0)NR₆R₇, -NR₈R₉, halogen, C_1 -C₆ alkoxy, CO_2R , -(C_1 -C₄ alkyl)-CO₂R, C₁-C₆ thioalkoxy, amidinooxime, C₁-C₆ 10 alkoxycarbonyl, $-(C_1-C_4 \text{ alkyl})-C_1-C_6 \text{ alkoxycarbonyl}, C_1-C_6$ hydroxyalkyl, C₁-C₆ dihydroxyalkyl, -(C₁-C₄ alkyl)-CN, CN, phenyl C_1 - C_6 alkoxy, OH, C_1 - C_4 haloalkyl, C_1 - C_4 haloalkoxy, $R_6R_7N - (C_1 - C_6 \text{ alkyl}) - , - (C_1 - C_4 \text{ alkyl}) - NR_{15}C(O)R_{18},$ amidinooxime, $-SO_2(C_1-C_6 \text{ alkyl})$, $-O-CH_2-O-$, $-O-CH_2CH_2-O-$, 15 phenyl C₁-C₄ alkoxy, or phenyl; wherein R_6 and R_7 are independently at each occurrence H, C_1 - C_4 alkyl, C₁-C₄ hydroxyalkyl, C₁-C₄ dihydroxyalkyl, C₁-C₄ alkanoyl, or C₁-C₄ alkoxy, each of which is optionally substituted with 1, 2, or 3 groups that 20

Embodiment 12. Compounds according to embodiment 11,

 C_1-C_4 alkoxy, C_1-C_4 alkyl, OH, CF_3 , or OCF_3 .

are independently halogen, OH, SH, C3-C6 cycloalkyl,

25 wherein

30

 R_5 is phenyl, benzyl or phenethyl, each of which is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently CN, halogen, C_1 - C_4 alkoxy, CF_3 , OCF_3 , C_1 - C_4 alkyl, $-NR_8R_9$, $-NR_6R_7$, R_6R_7N - $(C_1$ - C_6 alkyl)-, or $-C(O)NR_6R_7$, wherein

 R_6 and R_7 are independently at each occurrence H, C_1 - C_4 alkyl, C_1 - C_4 hydroxyalkyl, C_1 - C_4 dihydroxyalkyl, C_1 - C_4 alkanoyl, or C_1 - C_4 alkoxy, each of which is

optionally substituted with 1, 2, or 3 groups that are independently halogen, OH, SH, C_3 - C_6 cycloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 alkyl, OH, CF_3 , or OCF_3 .

5 Embodiment 13. Compounds according to embodiment 4, wherein

the R₅ group is of the formula:

$$Z_1$$
 or Z_2 Z_2

wherein

15

20

10 Z_1 and Z_2 are independently H, halogen, $C_1\text{-}C_4$ alkyl, or CO_2R ; and

Z is $-C(0)NR_6R_7$, $-(C_1-C_4)alkyl-C(0)NR_6R_7$, $-(C_1-C_4)alkyl-C(0)NR_6R_7$, $-(C_1-C_4)alkyl-C(0)NR_6R_7$, $-NR_6R_7$, $-NR_6R_7$, $-NR_6R_7$, $-NR_6R_7$, $-NR_6R_7$, $-NR_6R_7$, $-NR_6R_9$,

 R_6 and R_7 at each occurrence are independently H, OH, C_1 - C_6 alkyl, amino C_1 - C_4 alkyl, NH(C_1 - C_6 alkyl)alkyl, N(C_1 - C_6 alkyl)(C_1 - C_6 alkyl) C_1 - C_6 alkyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 dihydroxyalkyl, C_1 - C_6 alkoxy C_1 - C_6 alkyl, or - $SO_2(C_1$ - C_6 alkyl) each of which is optionally substituted with 1, 2, or 3 groups that are independently halogen, OH, SH, C_3 - C_6 cycloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 alkyl, OH, CF_3 , or OCF_3 ;

or

25 R_6 , R_7 , and the nitrogen to which they are attached form a piperidinyl, pyrrolidinyl, piperazinyl, morpholinyl, thiomorpholinyl, ring optionally substituted with 1 2 groups orthat independently alkyl, hydroxy, hydroxy C1-C4 alkyl, 30 C₁-C₄ dihydroxyalkyl, or halogen; and

 R_{18} is C_1 - C_6 alkyl optionally substituted with -O-(C_2 - C_6 alkanoyl, C_1 - C_6 hydroxyalkyl, C_1 - C_4 dihydroxyalkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkoxy, C_1 - C_6 alkyl, amino C_1 - C_6 alkyl, mono or dialkylamino C_1 - C_6 alkyl.

5

Embodiment 14. Compounds according to embodiment 4, wherein

pyrazolyl $(C_1-C_6 \quad alkyl)$, imidazolyl $(C_1-C_6 \quad alkyl)$, is R_5 thienyl(C_1 - C_6 alkyl), furanyl(C_1 - C_6 alkyl), piperidinyl(C_1 pyrrolidinyl (C_1-C_6) alkyl, imidazolidinyl(C₁-10 C_6) alkyl, C_6) alkyl, piperazinyl (C_1-C_6) alkyl, pyridyl (C_1-C_6) alkyl, pyrimidyl (C_1-C_6) alkyl, pyridazyl (C_1-C_6) alkyl, pyrazinyl (C_1-C_6) isoquinolinyl (C_1-C_6) alkyl, C_6) alkyl, tetrahydroisoquinolinyl (C_1-C_6) alkyl, indolyl (C_1-C_6) alkyl, 15 1H-indazolyl (C_1 - C_6) alkyl, dihydroindolyl(C₁-C₆ alkyl), dihydroindolon-2-yl(C_1 - C_6 alkyl), indolinyl(C_1 - C_6 alkyl), dihydroisoindolyl(C₁-C₆ alkyl), dihydrobenzimdazolyl(C₁-C₆ alkyl), or dihydrobenzoimidazolonyl(C_1 - C_6 alkyl), wherein each of the above is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently $(C_1-$ 20 C_6) alkyl, halogen, (C_1-C_6) alkoxy, (C_1-C_6) hydroxyalkyl, dihydroxyalkyl, phenyl (C_1-C_6) alkoxy, C_6) thioalkoxy, (C_1-C_6) alkoxycarbonyl, phenyl (C_1 - C_6) alkoxycarbonyl, OH, CO_2R , CN, amidinooxime, $-NR_8R_9$, $-NR_6R_7$, $R_6R_7N-(C_1-C_6 \quad alkyl)-,$ $-C(O)NR_6R_7$, 25 alkyl)-C(O)NR₆R₇, amidino, piperazinyl, morpholinyl, - (C_1-C_6) alkyl, $-SO_2NH_2$, $-SO_2NH(C_1-C_6)$ alkyl, - SO_2 $SO_2N(C_1-C_6)$ alkyl (C_1-C_6) alkyl, (C_1-C_4) haloalkyl, $-(C_1-C_4)$ C_4 alkyl)-NR₁₅C(O)NR₁₆R₁₇, -(C_1 - C_4 alkyl)-NR₁₅C(O)R₁₈, $-O-CH_2-O$, $-O-CH_2CH_2-O-$, or (C_1-C_4) haloalkoxy; wherein 30 R_6 and R_7 are independently at each occurrence H, (C_1-C_6) alkyl, (C_1-C_6) alkoxy, (C_1-C_6) alkoxy (C_1-C_6)

 (C_1-C_6) alkoxycarbonyl,

 C_6) alkyl,

	C_6) hydroxyalkyl, C_1 - C_6 dihydroxyalkyl, - (C_1 -
	C_4) alkyl- CO_2 - $(C_1$ - C_6) alkyl, $(C_1$ - C_6) alkanoyl,
	phenyl(C_1-C_6)alkyl, phenyl(C_1-C_6)alkoxy, or
	phenyl(C_1 - C_6)alkanoyl, wherein each of the above
5	is unsubstituted or substituted with 1, 2, or 3
	groups that are independently, halogen, $(C_1-$
	C_4) alkoxy, OH, SH, C_3 - C_6 cycloalkyl, NH ₂ , NH(C_1 -
	C_6 alkyl), $N(C_1-C_6$ alkyl)(C_1-C_6 alkyl), (C_1-C_6
	C ₄)alkyl, CF ₃ or OCF ₃ ; or
10	R_6 , R_7 , and the nitrogen to which they are attached
	form a morpholinyl, thiomorpholinyl,
	piperidinyl, pyrrolidinyl, or piperazinyl ring
	which is optionally substituted with 1 or 2
	groups that are independently C_1 - C_4 alkyl,
15	hydroxy, hydroxy C_1 - C_4 alkyl, C_1 - C_4
	dihydroxyalkyl, or halogen; and
	R_{18} is C_1C_6 alkyl optionally substituted with -O-(C_2 -
	C_6 alkanoyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6
	dihydroxyalkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkoxy C_1 - C_6
20	alkyl; amino C_1 - C_6 alkyl, mono or dialkylamino
	C ₁ -C ₆ alkyl.
	In this embodiment, it is preferred that R_6 and R_7 are not
	simultaneously OH; and
	R_6 and R_7 are not simultaneously $-SO_2\left(C_1-C_6\text{ alkyl}\right)$.
25	
	Embodiment 15. Compounds according to embodiment 14,
	wherein
	R_5 is pyrazolyl(C_1 - C_6 alkyl), imidazolyl(C_1 - C_6 alkyl),
	benzimidazolyl(C_1 - C_6 alkyl), thienyl(C_1 - C_6 alkyl),
30	pyrimidyl(C_1-C_6)alkyl, indolyl(C_1-C_6 alkyl),
	dihydroindolyl (C_1 - C_6 alkyl), dihydroisoindolyl (C_1 - C_6
	alkyl), dihydroindolon-2-yl(C1-C6 alkyl), pyridinyl(C1-C6

alkyl), piperazinyl($C_1\text{-}C_6$ alkyl), or pyrazinyl($C_1\text{-}C_6$ alkyl)

each of which is optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkyl, C_1 - C_4 hydroxyalkyl, C_1 - C_4 dihydroxyalkyl, halogen, -C(0)NR₆R₇, -(C_1 - C_4 alkyl)-C(0)NR₆R₇, C_1 - C_6 alkoxycarbonyl, -NR₆R₇, R₆R₇N-(C_1 - C_6 alkyl)-, haloalkyl, C_1 - C_6 alkanoyl,

 R_6 and R_7 at each occurrence are independently H, C_1 - C_6 alkyl optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkoxycarbonyl, halogen, C_3 - C_6 cycloalkyl, OH, SH, or C_1 - C_4 alkoxy;

10 or

5

 R_6 , R_7 , and the nitrogen to which they are attached form a piperidinyl, pyrrolidinyl, piperazinyl, or a morpholinyl ring optionally substituted with 1 or 2 groups that are independently alkyl, hydroxy, hydroxy C_1 - C_4 alkyl, C_1 - C_4 dihydroxyalkyl, or halogen.

Embodiment 16. Compounds according to embodiment 15, wherein

 R_5 is of the formula:

20

25

15

wherein

Z₅ is C_1 - C_4 alkyl, C_1 - C_4 hydroxyalkyl, C_1 - C_4 dihydroxyalkyl, halogen, $-C(O)NR_6R_7$, $-(C_1$ - C_4 alkyl)- $C(O)NR_6R_7$, C_1 - C_6 alkoxycarbonyl, R_6R_7N - $(C_1$ - C_6 alkyl)-, $-NR_6R_7$, CF_3 , or C_1 - C_6 alkanoyl, wherein

 R_6 and R_7 at each occurrence are independently H, C_1 - C_6 alkyl optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkoxycarbonyl, halogen, C_3 - C_6 cycloalkyl, OH, SH, or C_1 - C_4 alkoxy;

30 or

R₆, R₇, and the nitrogen to which they are attached form a piperidinyl, pyrrolidinyl, piperazinyl, or a morpholinyl ring optionally substituted with 1 or 2 groups that are independently alkyl, hydroxy, hydroxy C₁-C₄ alkyl, C₁-C₄ dihydroxyalkyl, or halogen.

Embodiment 17. Compounds according to embodiment 15, wherein

R₅ is of the formula:

 \mathcal{L}_{N}

10

15

25

5

wherein

Z₅ is C_1 - C_4 alkyl, C_1 - C_4 hydroxyalkyl, C_1 - C_4 dihydroxyalkyl, halogen, $-C(O)NR_6R_7$, $-(C_1$ - C_4 alkyl)- $C(O)NR_6R_7$, C_1 - C_6 alkoxycarbonyl, R_6R_7N - $(C_1$ - C_6 alkyl)-, $-NR_6R_7$, CF_3 , or C_1 - C_6 alkanoyl, wherein

 R_6 and R_7 at each occurrence are independently H, C_1 - C_6 alkyl optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkoxycarbonyl, halogen, C_3 - C_6 cycloalkyl, OH, SH, or C_1 - C_4 alkoxy;

20 or

 R_6 , R_7 , and the nitrogen to which they are attached form a piperidinyl, pyrrolidinyl, piperazinyl, or a morpholinyl ring optionally substituted with 1 or 2 groups that are independently alkyl, hydroxy, hydroxy C_1 - C_4 alkyl, C_1 - C_4 dihydroxyalkyl, or halogen.

Embodiment 18. Compounds according to either embodiment 16 or 17, wherein

 Z_5 is C_1 - C_4 alkyl, C_1 - C_4 hydroxyalkyl, C_1 - C_4 dihydroxyalkyl, halogen, C_1 - C_6 alkoxycarbonyl, CF_3 , or C_1 - C_6 alkanoyl.

Embodiment 19. Compounds according to either embodiment 16 or 17, wherein

 Z_5 is C_1-C_4 alkyl, $-C(O)NR_6R_7$, $-(C_1-C_4$ alkyl)- $C(O)NR_6R_7$, $R_6R_7N-(C_1-C_6$ alkyl)-, or $-NR_6R_7$, CF_3 , or C_1-C_4 alkanoyl, wherein

R₆ and R₇ at each occurrence are independently H, C_1 - C_6 alkyl optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkoxycarbonyl, halogen, C_3 - C_6 cycloalkyl, OH, SH, or C_1 - C_4 alkoxy;

or

10 R₆, R₇, and the nitrogen to which they are attached form a piperidinyl, pyrrolidinyl, piperazinyl, or a morpholinyl ring optionally substituted with 1 or 2 groups that are independently alkyl, hydroxy, hydroxy C₁-C₄ alkyl, C₁-C₄ dihydroxyalkyl, or halogen.

15

30

Embodiment 20. Compounds according to embodiment 19, wherein

 Z_5 is $-C(O)NR_6R_7$, $-(C_1-C_4$ alkyl) $-C(O)NR_6R_7$, $R_6R_7N-(C_1-C_6$ alkyl)-, or $-NR_6R_7$, wherein

20 R_6 and R_7 at each occurrence are independently H, C_1 - C_6 alkyl optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkoxycarbonyl, halogen, cyclopropyl, OH, SH, or C_1 - C_4 alkoxy.

25 Embodiment 21. Compounds according to embodiment 15, wherein

$$Z_{10}$$
 N
 Z_{20} , wherein

R₅ is of the formula:

 Z_{10} is H or methyl; and

 Z_{20} is hydroxy(C_1 - C_4)alkyl, C_1 - C_4 dihydroxyalkyl, OH, halogen, haloalkyl, (C_1 - C_4)alkyl, OCF₃, -NR₆R₇, R₆R₇N-(C_1 - C_6

5

15

25

alkyl)-, $-(C_1-C_4 \quad \text{alkyl})-C(O)\,NR_6R_7, \quad \text{or} \quad -C(O)\,NR_6R_7,$ wherein

 R_6 and R_7 at each occurrence are independently H, C_1 - C_6 alkyl optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkoxycarbonyl, halogen, C_3 - C_6 cycloalkyl, OH, SH, or C_1 - C_4 alkoxy.

Embodiment 22. Compounds according to embodiment 15, wherein

$$Z_{20}$$
 wherein

 R_5 is of the formula:

 Z_{10} is H or methyl; and

$$\begin{split} Z_{20} & \text{ is } \text{ hydroxy}(C_1\text{-}C_4) \text{ alkyl}, \quad C_1\text{-}C_4 \quad \text{dihydroxyalkyl}, \quad \text{OH}, \\ \text{halogen}, \quad CF_3, \quad (C_1\text{-}C_4) \text{ alkyl}, \quad \text{OCF}_3, \quad -\text{NR}_6\text{R}_7, \quad \text{R}_6\text{R}_7\text{N}\text{-}(C_1\text{-}C_6 \\ \text{alkyl})\text{-}, \quad -(C_1\text{-}C_4 \text{ alkyl})\text{-}C(0) \text{NR}_6\text{R}_7, \quad \text{or } \text{-}C(0) \text{NR}_6\text{R}_7, \quad \text{wherein} \\ \text{R}_6 & \text{and} \quad \text{R}_7 \quad \text{at each occurrence are independently H, } C_1\text{-}C_6 \\ & \text{alkyl} \quad \text{optionally substituted with 1, 2, or 3 groups} \end{split}$$

that are independently C_1 - C_4 alkoxycarbonyl, halogen, C_3 - C_6 cycloalkyl, OH, SH, or C_1 - C_4 alkoxy.

20 Embodiment 23. Compounds according to embodiment 15, wherein

$$Z_{10}$$
 N
 Z_{20} wherein

 R_5 is of the formula:

 Z_{10} is H or methyl; and

 Z_{20} is hydroxy(C_1 - C_4)alkyl, C_1 - C_4 dihydroxyalkyl, OH, halogen, haloalkyl, (C_1 - C_4)alkyl, OCF₃, -NR₆R₇, R₆R₇N-(C_1 - C_6 alkyl)-, -(C_1 - C_4 alkyl)-C(O)NR₆R₇, or -C(O)NR₆R₇, wherein

 R_6 and R_7 at each occurrence are independently H, C_1 - C_6 alkyl optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkoxycarbonyl, halogen, C_3 - C_6 cycloalkyl, OH, SH, or C_1 - C_4 alkoxy.

5

Embodiment 24. Compounds according to embodiment 15, wherein

$$Z_{10}$$
 N
 Z_{20} wherein

R₅ is of the formula:

 Z_{10} is H or methyl; and

10 Z_{20} is hydroxy(C_1 - C_4)alkyl, C_1 - C_4 dihydroxyalkyl, OH, halogen, CF₃, (C_1 - C_4)alkyl, OCF₃, -NR₆R₇, R₆R₇N-(C_1 - C_6 alkyl)-, -(C_1 - C_4 alkyl)-C(O)NR₆R₇, or -C(O)NR₆R₇, wherein R₆ and R₇ at each occurrence are independently H, C₁-C₆ alkyl optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkoxycarbonyl, halogen,

 C_3 - C_6 cycloalkyl, OH, SH, or C_1 - C_4 alkoxy.

Embodiment 25. Compounds according to embodiment 15, wherein

$$Z_{10}$$
 Z_{20} wherein

20

R₅ is of the formula:

 Z_{10} is H or methyl; and

$$\begin{split} Z_{20} \quad &\text{is} \quad \text{hydroxy}\,(C_1-C_4)\,\text{alkyl}\,, \quad C_1-C_4 \quad dihydroxyalkyl\,, \quad \text{OH}\,, \\ &\text{halogen}, \quad \text{haloalkyl}\,, \quad &(C_1-C_4)\,\text{alkyl}\,, \quad \text{OCF}_3\,, \quad &-\text{NR}_6R_7\,, \quad &R_6R_7\text{N--}\,(C_1-C_6\\ &\text{alkyl})\,-\,, \qquad &-\left(C_1-C_4 \quad \text{alkyl}\right)\,-C\left(O\right)\text{NR}_6R_7\,, \quad &\text{or} \quad &-C\left(O\right)\text{NR}_6R_7\,, \end{split}$$

wherein

 R_6 and R_7 at each occurrence are independently H, C_1 - C_6 alkyl optionally substituted with 1, 2, or 3 groups

that are independently C_1 - C_4 alkoxycarbonyl, halogen, C_3 - C_6 cycloalkyl, OH, SH, or C_1 - C_4 alkoxy.

Embodiment 26. Compounds according to embodiment 15, wherein

$$Z_{10}$$
 Z_{20} wherein

 R_5 is of the formula:

Z₁₀ is H or methyl; and

Z₂₀ is hydroxy(C₁-C₄)alkyl, C₁-C₄ dihydroxyalkyl, OH, halogen, CF₃, (C₁-C₄)alkyl, OCF₃, -NR₆R₇, R₆R₇N-(C₁-C₆ alkyl)-, -(C₁-C₄ alkyl)-C(O)NR₆R₇, or -C(O)NR₆R₇, wherein R₆ and R₇ at each occurrence are independently H, C₁-C₆ alkyl optionally substituted with 1, 2, or 3 groups that are independently C₁-C₄ alkoxycarbonyl, halogen, C₃-C₆ cycloalkyl, OH, SH, or C₁-C₄ alkoxy.

15

10

Embodiment 27. Compounds according to embodiment 15, wherein

$$Z_{10}$$
 Z_{20} where

R₅ is of the formula:

 Z_{10} is H or methyl; and

Z₂₀ is hydroxy(C_1 - C_4)alkyl, C_1 - C_4 dihydroxyalkyl, OH, halogen, haloalkyl, (C_1 - C_4)alkyl, OCF₃, -NR₆R₇, R₆R₇N-(C_1 - C_6 alkyl)-, -(C_1 - C_4 alkyl)-C(O)NR₆R₇, or -C(O)NR₆R₇, wherein

 R_6 and R_7 at each occurrence are independently H, C_1 - C_6 alkyl optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkoxycarbonyl, halogen, C_3 - C_6 cycloalkyl, OH, SH, or C_1 - C_4 alkoxy.

Embodiment 28. Compounds according to embodiment 15, wherein

 R_5 is of the formula:

 Z_{10} is H or methyl; and

5 Z₂₀ is hydroxy(C₁-C₄)alkyl, C₁-C₄ dihydroxyalkyl, OH, halogen, CF₃, (C₁-C₄)alkyl, OCF₃, -NR₆R₇, R₆R₇N-(C₁-C₆ alkyl)-, -(C₁-C₄ alkyl)-C(O)NR₆R₇, or -C(O)NR₆R₇, wherein R₆ and R₇ at each occurrence are independently H, C₁-C₆ alkyl optionally substituted with 1, 2, or 3 groups that are independently C₁-C₄ alkoxycarbonyl, halogen, C₃-C₆ cycloalkyl, OH, SH, or C₁-C₄ alkoxy.

Embodiment 29. Compounds according to embodiment 4, wherein

15 R_5 is phenyl, which is optionally substituted with 1, 2, 3, 4, or 5 groups that are independently C_1 - C_4 alkyl, - $C(O)NR_6R_7$, - $(C_1$ - C_4 alkyl)- $C(O)NR_6R_7$, - NR_6R_7 , NR_6R_7 (C_1 - C_6 alkyl), C_1 - C_6 hydroxyalkyl, dihydroxyalkyl, halogen, C_1 - C_4 alkoxy, CO_2R , OH, C_1 - C_6 alkoxycarbonyl, CF_3 , - $(C_1$ - C_4 alkyl)- $NR_{15}C(O)NR_{16}R_{17}$, - $(C_1$ - C_4 alkyl)- $NR_{15}C(O)R_{18}$; wherein

 R_{15} is H or C_1 - C_6 alkyl;

 R_{16} and R_{17} are independently H or $C_1\text{--}C_6$ alkyl; or $R_{16},\ R_{17},$ and the nitrogen to which they are attached form

a morpholinyl ring; and

25 R_{18} is C_1 - C_6 alkyl optionally substituted with -O-(C_2 - C_6 alkanoyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 dihydroxyalkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkoxy, C_1 - C_6 alkyl, mono or dialkylamino C_1 - C_6 alkyl.

5

10

15

Embodiment 30. Compounds according to embodiment 29, wherein

R₅ is of the formula:

$$Z_1$$
 Z_2 Z_3 or Z_3 or Z_2 Z_3 Z_2 Z_3 Z_4 Z_2 Z_3 Z_4

 Z_1 is H, halogen, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 hydroxyalkyl, C_1 - C_4 dihydroxyalkyl, or C_1 - C_4 alkoxy; and

 $Z_2 \text{ is } C_1-C_4 \text{ alkyl}, -C(0)NR_6R_7, -(C_1-C_4 \text{ alkyl})-C(0)NR_6R_7, -NR_6R_7, \\ NR_6R_7(C_1-C_6 \text{ alkyl}), C_1-C_6 \text{ hydroxyalkyl}, C_1-C_6 \\ \text{dihydroxyalkyl}, \text{ halogen}, C_1-C_4 \text{ alkoxy}, CO_2R, OH, C_1-C_6 \\ \text{alkoxycarbonyl}, \text{ or } C_1-C_4 \text{ haloalkyl};$

Z₃ is H, C₁-C₄ alkyl, -C(O)NR₆R₇, -(C₁-C₄ alkyl)-C(O)NR₆R₇, -NR₆R₇, $NR_6R_7(C_1-C_6 \quad alkyl), \quad C_1-C_6 \quad hydroxyalkyl, \quad C_1-C_6$ dihydroxyalkyl, halogen, C₁-C₄ alkoxy, CO₂R, OH, C₁-C₆ alkoxycarbonyl, or C₁-C₄ haloalkyl;

and wherein

R₆ and R₇ at each occurrence are independently H, OH, C₁-C₆ alkyl, amino C₁-C₄ alkyl, NH(C₁-C₆ alkyl)alkyl, N(C₁-C₆ alkyl)(C₁-C₆ alkyl) C₁-C₆ alkyl, C₁-C₆ hydroxyalkyl, C₁-C₆ alkyl, C₁-C₆ alkyl, -SO₂(C₁-C₆ alkyl), -SO₂NH₂, -SO₂NH(C₁-C₆ alkyl), -SO₂N(C₁-C₆ alkyl)(C₁-C₆ alkyl), or C₁-C₆ alkanoyl, each of which is optionally substituted with 1, 2, or 3 groups that are independently halogen, OH, SH, C₃-C₆ cycloalkyl, C₁-C₄ alkoxy, C₁-C₄ alkyl, OH, CF₃, or OCF₃.

In this embodiment, it is preferred that at least one of $Z_1,\ Z_2,\ \text{and}\ Z_3$ is not hydrogen.

Embodiment 31. Compounds according to embodiment 30,

30 wherein

R₅ is of the formula:

wherein

15

20

 Z_1 is H, halogen, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 hydroxyalkyl, C_1 - C_4 dihydroxyalkyl, or C_1 - C_4 alkoxy; and

$$\begin{split} Z_2 & \text{ is } C_1\text{-}C_4 & \text{ alkyl}, & \text{-}C(0)\,\text{NR}_6\text{R}_7, & \text{-}\left(C_1\text{-}C_4 & \text{alkyl}\right)\text{-}C(0)\,\text{NR}_6\text{R}_7, & \text{-}\text{NR}_6\text{R}_7, \\ & \text{NR}_6\text{R}_7\left(C_1\text{-}C_6 & \text{alkyl}\right), & C_1\text{-}C_6 & \text{hydroxyalkyl}, & C_1\text{-}C_6 \\ & \text{dihydroxyalkyl}, & \text{halogen}, & C_1\text{-}C_4 & \text{alkoxy}, & \text{CO}_2\text{R}, & \text{OH}, & C_1\text{-}C_6 \\ & \text{alkoxycarbonyl}, & \text{or } C_1\text{-}C_4 & \text{haloalkyl}; \end{split}$$

10 Z_3 is H, C_1 - C_4 alkyl, -C(O)NR₆R₇, -(C_1 - C_4 alkyl)-C(O)NR₆R₇, -NR₆R₇, $NR_6R_7(C_1$ - C_6 alkyl), C_1 - C_6 hydroxyalkyl, C_1 - C_6 dihydroxyalkyl, halogen, C_1 - C_4 alkoxy, CO_2R , OH, C_1 - C_6 alkoxycarbonyl, or C_1 - C_4 haloalkyl, and wherein

R₆ and R₇ at each occurrence are independently H, OH, C₁-C₆ alkyl, amino C₁-C₄ alkyl, NH(C₁-C₆ alkyl)alkyl, N(C₁-C₆ alkyl)(C₁-C₆ alkyl) C₁-C₆ alkyl, C₁-C₆ hydroxyalkyl, C₁-C₆ dihydroxyalkyl, C₁-C₆ alkoxy C₁-C₆ alkyl, -SO₂(C₁-C₆ alkyl), -SO₂NH₂, -SO₂NH(C₁-C₆ alkyl), -SO₂N(C₁-C₆ alkyl)(C₁-C₆ alkyl), or C₁-C₆ alkanoyl, each of which is optionally substituted with 1, 2, or 3 groups that are independently halogen, OH, SH, C₃-C₆ cycloalkyl, C₁-C₄ alkoxy, C₁-C₄ alkyl, OH, CF₃, or OCF₃.

In this embodiment, it is preferred that at least one of Z_1 , Z_2 , and Z_3 is not hydrogen.

Embodiment 32. Compounds according to embodiment 30, wherein

R₅ is of the formula:

$$Z_1$$
 Z_2

wherein

 Z_1 is H, halogen, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 hydroxyalkyl, C_1 - C_4 dihydroxyalkyl, or C_1 - C_4 alkoxy; and

5 Z_2 is C_1 - C_4 alkyl, $-C(O)NR_6R_7$, $-(C_1$ - C_4 alkyl)- $C(O)NR_6R_7$, $-NR_6R_7$, $NR_6R_7(C_1$ - C_6 alkyl), C_1 - C_6 hydroxyalkyl, C_1 - C_6 dihydroxyalkyl, halogen, C_1 - C_4 alkoxy, CO_2R , OH, C_1 - C_6 alkoxycarbonyl, or C_1 - C_4 haloalkyl;

 $Z_3 \text{ is H, } C_1\text{-}C_4 \text{ alkyl, } \text{-}C(O) \text{NR}_6\text{R}_7, \text{-}(C_1\text{-}C_4 \text{ alkyl})\text{-}C(O) \text{NR}_6\text{R}_7, \text{-}\text{NR}_6\text{R}_7, \\ \text{NR}_6\text{R}_7(C_1\text{-}C_6 \text{ alkyl}), \quad C_1\text{-}C_6 \text{ hydroxyalkyl, } C_1\text{-}C_6 \\ \text{dihydroxyalkyl, halogen, } C_1\text{-}C_4 \text{ alkoxy, } \text{CO}_2\text{R, OH, } C_1\text{-}C_6 \\ \text{alkoxycarbonyl, or } C_1\text{-}C_4 \text{ haloalkyl, and wherein}$

R₆ and R₇ at each occurrence are independently H, OH, C₁-C₆ alkyl, amino C₁-C₄ alkyl, NH(C₁-C₆ alkyl)alkyl, N(C₁-C₆ alkyl)(C₁-C₆ alkyl) C₁-C₆ alkyl, C₁-C₆ hydroxyalkyl, C₁-C₆ dihydroxyalkyl, C₁-C₆ alkoxy C₁-C₆ alkyl, -SO₂(C₁-C₆ alkyl), -SO₂NH₂, -SO₂NH(C₁-C₆ alkyl), -SO₂N(C₁-C₆ alkyl)(C₁-C₆ alkyl), or C₁-C₆ alkanoyl, each of which is optionally substituted with 1, 2, or 3 groups that are independently halogen, OH, SH, C₃-C₆ cycloalkyl, C₁-C₄ alkoxy, C₁-C₄ alkyl, OH, CF₃,

In this embodiment, it is preferred that at least one of $Z_1,\ Z_2,$ and Z_3 is not hydrogen.

25

15

20

Embodiment 33. Compounds according to embodiment 29, wherein

R₅ is either

or OCF3.

$$Z_1$$
 Z_2 Z_3 Z_2 or Z_3 Z_2 Z_3 Z_3 Z_3 Z_2 Z_3

wherein

- Z_1 is H, halogen, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 hydroxyalkyl, C_1 - C_4 dihydroxyalkyl, or C_1 - C_4 alkoxy; and
- 10 Z_3 is H, C_1 - C_4 alkyl, -C(O)NR₆R₇, -(C_1 - C_4 alkyl)-C(O)NR₆R₇, -NR₆R₇, $NR_6R_7(C_1-C_6 \quad \text{alkyl}), \quad C_1-C_6 \quad \text{hydroxyalkyl}, \quad C_1-C_6 \quad \text{dihydroxyalkyl}, \quad \text{halogen}, \quad C_1-C_4 \quad \text{alkoxy}, \quad CO_2R, \quad C_1-C_6 \quad \text{alkoxycarbonyl}, \quad -(C_1-C_4 \quad \text{alkyl})-NR_{15}C(O)NR_{16}R_{17}, \quad \text{or} \quad -(C_1-C_4 \quad \text{alkyl})-NR_{15}C(O)R_{18};$
- 15 R₆, R₇, and the nitrogen to which they are attached form a piperidinyl, pyrrolidinyl, piperazinyl, or a morpholinyl ring optionally substituted with 1 or 2 groups that are independently alkyl, hydroxy, hydroxy C₁-C₄ alkyl, C₁-C₄ dihydroxyalkyl, or halogen;

20 R_{15} is H or C_1 - C_6 alkyl;

 R_{16} and R_{17} are independently H or C_1 - C_6 alkyl; or

 R_{16} , R_{17} , and the nitrogen to which they are attached form a morpholinyl ring; and

 R_{18} is C_1 - C_6 alkyl optionally substituted with -O-(C_2 - C_6 alkanoyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 dihydroxyalkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkoxy C_1 - C_6 alkyl, mono or dialkylamino C_1 - C_6 alkyl.

In this embodiment, it is preferred that at least one of $Z_1,\ Z_2,$ and Z_3 is not hydrogen.

30

25

Embodiment 34. Compounds according to embodiment 33, wherein

R₅ is of the formula:

5

10

15

20

25

30

 Z_1 is H, halogen, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 hydroxyalkyl, C_1 - C_4 dihydroxyalkyl, or C_1 - C_4 alkoxy; and

 $Z_3 \text{ is H, } C_1\text{-}C_4 \text{ alkyl, } -C(0) \, NR_6R_7, \ -(C_1\text{-}C_4 \text{ alkyl}) -C(0) \, NR_6R_7, \ -NR_6R_7, \\ NR_6R_7(C_1\text{-}C_6 \text{ alkyl}), \quad C_1\text{-}C_6 \text{ hydroxyalkyl, } C_1\text{-}C_6 \\ \text{dihydroxyalkyl, halogen, } C_1\text{-}C_4 \text{ alkoxy, } CO_2R, \quad C_1\text{-}C_6 \\ \text{alkoxycarbonyl, } -(C_1\text{-}C_4 \text{ alkyl}) -NR_{15}C(0) \, NR_{16}R_{17}, \text{ or } -(C_1\text{-}C_4 \text{ alkyl}) -NR_{15}C(0) \, R_{18};$

R₆, R₇, and the nitrogen to which they are attached form a piperidinyl, pyrrolidinyl, piperazinyl, or a morpholinyl ring optionally substituted with 1 or 2 groups that are independently alkyl, hydroxy, hydroxy C₁-C₄ alkyl, C₁-C₄ dihydroxyalkyl, or halogen;
R₁₅ is H or C₁-C₆ alkyl;

 R_{16} and R_{17} are independently H or C_1 - C_6 alkyl; or

 R_{16} , R_{17} , and the nitrogen to which they are attached form a morpholinyl ring; and

 R_{18} is C_1 - C_6 alkyl optionally substituted with -O-(C_2 - C_6 alkanoyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 dihydroxyalkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkoxy, C_1 - C_6 alkyl, amino C_1 - C_6 alkyl, mono or dialkylamino C_1 - C_6 alkyl.

In this embodiment, it is preferred that at least one of Z_1 , Z_2 , and Z_3 is not hydrogen.

Embodiment 35. Compounds according to embodiment 33, wherein

 R_5 is of the formula:

wherein

10

15

20

25

30

 Z_1 is H, halogen, C_1 - C_4 alkyl C_1 - C_4 haloalkyl, C_1 - C_4 hydroxyalkyl, C_1 - C_4 dihydroxyalkyl, or C_1 - C_4 alkoxy; and

$$\begin{split} Z_2 & \text{ is } C_1\text{-}C_4 & \text{ alkyl}, & \text{-}C(O)\,\text{NR}_6\text{R}_7, & \text{-}\left(C_1\text{-}C_4 & \text{alkyl}\right)\text{-}C(O)\,\text{NR}_6\text{R}_7, & \text{-}\text{NR}_6\text{R}_7, \\ & \text{NR}_6\text{R}_7\left(C_1\text{-}C_6 & \text{alkyl}\right), & \text{C}_1\text{-}C_6 & \text{hydroxyalkyl}, & \text{C}_1\text{-}C_6 \\ & \text{dihydroxyalkyl}, & \text{halogen}, & \text{C}_1\text{-}C_4 & \text{alkoxy}, & \text{CO}_2\text{R}, & \text{C}_1\text{-}C_6 \\ & \text{alkoxycarbonyl}, & \text{-}\left(C_1\text{-}C_4 & \text{alkyl}\right)\text{-}\text{NR}_{15}\text{C}\left(O\right)\text{NR}_{16}\text{R}_{17}, & \text{or } \text{-}\left(C_1\text{-}C_4 & \text{alkyl}\right)\text{-}\text{NR}_{15}\text{C}\left(O\right)\text{R}_{18}; \end{split}$$

$$\begin{split} Z_3 & \text{ is H, } C_1\text{-}C_4 \text{ alkyl, } -\text{C(O)} \, \text{NR}_6\text{R}_7, \ -\text{(C}_1\text{-}C_4 \text{ alkyl)} -\text{C(O)} \, \text{NR}_6\text{R}_7, \ -\text{NR}_6\text{R}_7, \\ & \text{NR}_6\text{R}_7 \left(\text{C}_1\text{-}C_6 \text{ alkyl}\right), \quad C_1\text{-}C_6 \text{ hydroxyalkyl, } \quad C_1\text{-}C_6 \\ & \text{dihydroxyalkyl, halogen, } C_1\text{-}C_4 \text{ alkoxy, } CO_2\text{R, } C_1\text{-}C_6 \\ & \text{alkoxycarbonyl, } -\text{(C}_1\text{-}C_4 \text{ alkyl)} -\text{NR}_{15}\text{C(O)} \, \text{NR}_{16}\text{R}_{17}, \text{ or } -\text{(C}_1\text{-}C_4 \\ & \text{alkyl)} -\text{NR}_{15}\text{C(O)} \, \text{R}_{18}; \end{split}$$

R₆, R₇, and the nitrogen to which they are attached form a piperidinyl, pyrrolidinyl, piperazinyl, or a morpholinyl ring, each of which is optionally substituted with 1 or 2 groups that are independently alkyl, hydroxy, hydroxy C₁-C₄ alkyl, C₁-C₄ dihydroxyalkyl, or halogen;

 R_{15} is H or C_1 - C_6 alkyl;

 R_{16} and R_{17} are independently H or $C_1\text{-}C_6$ alkyl; or $R_{16},\ R_{17},\ \text{and}$ the nitrogen to which they are attached form a morpholinyl ring; and

 R_{18} is C_1 - C_6 alkyl optionally substituted with -O-(C_2 - C_6 alkanoyl, C1-C6 hydroxyalkyl, C1-C6 dihydroxyalkyl, C_1-C_6 alkoxy, C_1-C_6 alkoxy C_1-C_6 alkyl; amino C_1-C_6 alkyl, mono or dialkylamino C₁-C₆ alkyl.

In this embodiment, it is preferred that at least one of 5 Z_1 , Z_2 , and Z_3 is not hydrogen.

Embodiment 36. A compound of the formula

$$X_1 \xrightarrow{N} O$$

$$X_1 \xrightarrow{N} O$$

$$X_2 \xrightarrow{Y_1} Y_2$$

10 or a pharmaceutically acceptable salt thereof, wherein L and M are indepedently selected from -O-, -CH2-, -S-,-NR-, - $N(R) - N(R) - C(=0) - C_{2} - C_{3}$

, wherein R_5 is

 X_1 , X_2 , X_a , X_b , X_c , X_d , and X_e at are independently selected from 15 $-C(O)NR_6R_7$, $-(C_1-C_4 \text{ alkyl})-C(O)NR_6R_7$, $-NR_6R_7$, hydroxy(C_1-C_4) C4) alkyl, C1-C4 dihydroxyalkyl, H, OH, halogen, haloalkyl, alkyl, haloalkoxy, heteroaryl, heterocycloalkyl, C₃-C₇ alkyl)-, $-CO_2$ - $(C_1$ - $C_6)$ alkyl, cycloalkyl, $R_6R_7N-(C_1-C_6)$ $-N(R)C(O)NR_6R_7$, $-N(R)C(O)-(C_1-C_6)alkoxy$, $CO_2R-(C_1-C_6)alkyl)-$ 20 $-SO_2NR_6R_7$; wherein the heteroaryl orand heterocycloalkyl groups are optionally substituted with - NR_6R_7 , $-C(0)NR_6R_7$, $R_6R_7N-(C_1-C_6 \text{ alkyl})-$, $C_1-C_6 \text{ alkyl}$, C_1-C_6 alkoxy, or halogen; or

 R_5 is heteroaryl or heteroarylalkyl, wherein the heteroaryl and heteroaryl groups are optionally substituted with 1,2, 3, 25

25

30

and

or 4 groups that are independently $-C(0)NR_6R_7$, hydroxy (C_1-C_4) alkyl, alkyl) - $C(0) NR_6R_7$, $-NR_6R_7$, $C_1 - C_4$ halogen, haloalkyl, dihydroxyalkyl, H, OH, alkyl, haloalkoxy, $R_6R_7N-(C_1-C_6)$ alkyl)-, $-CO_2$ - $(C_1$ - $C_6)$ alkyl; ... $-N(R)C(O)NR_6R_7$, or $-N(R)C(O)-(C_1-C_6)$ alkoxy; wherein 5 R_6 and R_7 are independently at each occurrence H, $C_1\text{-}C_6$ alkyl, C_1-C_6 alkoxy, C_1-C_6 alkoxy C_1-C_6 alkyl, C_1-C_6 alkoxycarbonyl, OH, $C_1 - C_6$ hydroxyalkyl, dihydroxyalkyl, C_1-C_6 thiohydroxyalkyl, $-(C_1-C_4)$ alkyl-10 CO_2 -alkyl, pyridyl C_1 - C_6 alkyl, C_1 - C_6 alkanoyl, benzyl, phenyl C_1 - C_6 alkoxy, or phenyl C_1 - C_6 alkanoyl, wherein each of the above is unsubstituted or substituted with 1, 2, or 3 groups that are independently, halogen, $C_3 - C_6$ cycloalkyl, alkoxy, piperidinyl C₁-C₆ alkyl, morpholinyl C₁-C₆ 15 alkyl, piperazinyl C₁-C₆ alkyl, OH, SH, NH_2 , NH(alkyl), N(alkyl)(alkyl), $-O-C_1-C_4$ alkanoyl, C_1-C_4 alkyl, CF3, or OCF3; or R_6 , R_7 , and the nitrogen to which they are attached form a 20 thiomorpholinyl, piperidinyl, morpholinyl, pyrrolidinyl, piperazinyl ring which or optionally substituted with 1 or 2 groups that are independently C_1-C_4 alkyl, C_1-C_4 alkoxy,

Y, Y₁, Y₂, Y₃, and Y₄ are independently selected from H, halogen, alkyl, carboxaldehyde, hydroxyalkyl, dihydroxyalkyl, alkenyl, alkynyl, CN, alkanoyl, alkoxy, alkoxyalkyl, haloalkyl, and carboxyl.

Embodiment 37. Compounds according to embodiment 36 of the formula

hydroxy C_1 - C_4 alkyl, C_1 - C_4 dihydroxyalkyl, or halogen;

R at each occurrence is independently H or C₁-C₆ alkyl;

or a pharmaceutically acceptable salt thereof.

Embodiment 38. Compounds according to embodiment 37, 5 wherein

$$Xa$$
 Xe
 Xb
 Xd
 Xb
 Xd
 Xb
 Xd
 Xd
 Xd

Embodiment 39. Compounds according to embodiment 31, wherein

10 Y_2 , Y_4 , and Y are independently halogen; and Y_1 and Y_3 are both hydrogen.

Embodiment 40. Compounds according to embodiment 39, wherein

15

 X_1 and X_2 are independently H, methyl, NR_6R_7 , $-(C_1-C_4$ alkyl)- $C(O)NR_6R_7$, $R_6R_7N-(C_1-C_6$ alkyl)-, $-C(O)NR_6R_7$, C_1-C_6 hydroxyalkyl, C_1-C_6 dihydroxyalkyl, or $-(C_1-C_4$ alkyl)- morpholinyl; and

20 X_a and X_e are independently halogen, NH₂, NH(C₁-C₆ alkyl), N(C₁-C₆ alkyl), methyl, or hydrogen.

10

15

In this embodiment, it is preferred that one of X_a and X_e is not hydrogen.

Embodiment 41. Compounds according to embodiment 40, 5 wherein

one of X_b and X_c is hydrogen and the other is $-NR_6R_7$, R_6R_7N -(C_1 - C_6 alkyl)-, $-C(O)NR_6R_7$, $-SO_2NR_6R_7$, or halogen; where

R₆ and R₇ are independently at each occurrence H, C₁-C₆ alkyl, C₁-C₆ alkoxy, C₁-C₆ alkoxy C₁-C₆ alkyl, C₁-C₆ alkoxycarbonyl, OH, C₁-C₆ hydroxyalkyl, C₁-C₆ dihydroxyalkyl, -(C₁-C₄)alkyl-CO₂-alkyl, pyridyl C₁-C₆ alkyl, C₁-C₆ alkanoyl, benzyl, phenyl C₁-C₆ alkoxy, or phenyl C₁-C₆ alkanoyl, wherein each of the above is unsubstituted or substituted with 1, 2, or 3 groups that are independently, halogen, C₃-C₆ cycloalkyl, C₁-C₆ alkoxy, piperidinyl C₁-C₆ alkyl, morpholinyl C₁-C₆ alkyl, piperazinyl C₁-C₆ alkyl, OH, SH, NH₂, NH(alkyl), N(alkyl)(alkyl), -O-C₁-C₄ alkanoyl, C₁-C₄ alkyl, CF₃, or OCF₃; or

20 R₆, R₇, and the nitrogen to which they are attached form a morpholinyl, thiomorpholinyl, piperidinyl, pyrrolidinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C₁-C₄ alkyl, C₁-C₄ alkoxy, hydroxy, hydroxy C₁-C₄ alkyl, C₁-C₄ dihydroxyalkyl, or halogen.

Embodiment 42. Compounds according to embodiment 41, wherein

 R_6 and R_7 are independently at each occurrence H, C_1 - C_6 alkyl, alkoxy 30 $C_1 - C_6$ alkoxy, C_1-C_6 $C_1 - C_6$ alkyl, C_1-C_6 alkoxycarbonyl, OH, $C_1 - C_6$ hydroxyalkyl, C_1-C_6 dihydroxyalkyl, $-(C_1-C_4)$ alkyl $-CO_2$ -alkyl, pyridyl alkyl, C_1 - C_6 alkanoyl, benzyl, phenyl C_1 - C_6 alkoxy, or

5

phenyl C₁-C₆ alkanoyl, wherein each of the above is unsubstituted or substituted with 1, 2, or 3 groups that are independently, halogen, C₃-C₆ cycloalkyl, C₁-C₆ alkoxy, morpholinyl piperidinyl C1-C6 alkyl, $C_1 - C_6$ piperazinyl $C_1 - C_6$ alkyl, OH, NH_2 , NH(alkyl), N(alkyl)(alkyl), $-O-C_1-C_4$ alkanoyl, C_1-C_4 alkyl, CF_3 , or OCF3.

Embodiment 43. Compounds according to embodiment 42, 10 wherein

X_a is hydrogen, methyl, fluorine, or chlorine;

Xc and Xd are both hydrogen;

 X_b is $-NR_6R_7$, $-(C_1-C_4$ alkyl)- $C(O)NR_6R_7$, $R_6R_7N-(C_1-C_6$ alkyl)-, - $C(O)NR_6R_7$; wherein

15 R₆ and R₇ are independently at each occurrence H, C₁-C₆ alkyl, C₁-C₆ hydroxyalkyl, C₁-C₄ dihydroxyalkyl, C₁-C₆ alkoxy, C₁-C₆ alkoxy C₁-C₆ alkyl, or C₁-C₆ alkanoyl, wherein each of the above is optionally substituted with 1, 2, or 3 groups that are independently OH, SH, halogen, or C₃-C₆ cycloalkyl.

Embodiment 44. Compounds according to embodiment 39, wherein

$$Xa$$
 Xb
 Xb
 Xc
 Xb
 Xc

25 X_a is H, fluoro, chloro, or methyl;
 X_e is hydrogen, halogen, or methyl; and
 X_b is H;
 X_d is H or halogen;

Embodiment 45. Compounds according to embodiment 44, wherein

X_c is -SO₂NR₆R₇, or halogen; wherein

- R_6 and R_7 are independently at each occurrence H, C_1 - C_6 alkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkoxy C_1 - C_6 alkyl, C_1 - C_6 5 alkoxycarbonyl, OH, $C_1 - C_6$ hydroxyalkyl, C1-C6 dihydroxyalkyl, $-(C_1-C_4)$ alkyl $-CO_2$ -alkyl, pyridyl C_1-C_6 alkyl, C₁-C₆ alkanoyl, benzyl, phenyl C₁-C₆ alkoxy, or phenyl C1-C6 alkanoyl, wherein each of the above is 10 unsubstituted or substituted with 1, 2, or 3 groups that are independently, halogen, C3-C6 cycloalkyl, C₁-C₆ alkoxy, piperidinyl C₁-C₆ alkyl, morpholinyl C₁-C₆ alkyl, piperazinyl C₁-C₆ alkyl, OH, NH(alkyl), N(alkyl)(alkyl), $-O-C_1-C_4$ alkanoyl, C_1-C_4 15 alkyl, CF₃, or OCF₃; or
 - R₆, R₇, and the nitrogen to which they are attached form a morpholinyl, thiomorpholinyl, piperidinyl, pyrrolidinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C₁-C₄ alkyl, C₁-C₄ alkoxy, hydroxy, hydroxy C₁-C₄ alkyl, C₁-C₄ dihydroxyalkyl, or halogen; or
- X_c is fluoro, chloro, -NH₂, -NH(C₁-C₆ alkyl), -N(C₁-C₆ alkyl)(C₁-C₆ alkyl), -SO₂NH₂, -SO₂NH(C₁-C₆ alkyl), -SO₂N(C₁-C₆
 alkyl)(C₁-C₆ alkyl), or piperazinyl, wherein the piperazinyl group is optionally substituted with 1 or 2 groups that are independently C₁-C₄ alkyl, C₁-C₄ alkoxy, hydroxy, hydroxy C₁-C₄ alkyl, C₁-C₄ dihydroxyalkyl, or halogen.

30

20

Embodiment 46. Compounds according to embodiment 44, wherein

5

10

15

20

 X_c is $-C(O)NR_6R_7$, $-(C_1-C_6$ alkyl) $-C(O)NR_6R_7$, $-NR_6R_7$, or $R_6R_7N-(C_1-C_6$ alkyl) -; wherein

 R_6 and R_7 are independently at each occurrence H, C_1 - C_6 alkyl, C_1-C_6 alkoxy, C_1-C_6 alkoxy C_1-C_6 alkyl, C_1-C_6 alkoxycarbonyl, OH, $C_1 - C_6$ hydroxyalkyl, $C_1 - C_6$ dihydroxyalkyl, C_1-C_6 dihydroxyalkyl, $-(C_1-C_4)$ alkyl-CO₂-alkyl, pyridyl C₁-C₆ alkyl, C₁-C₆ benzyl, phenyl C_1 - C_6 alkoxy, or phenyl C_1 - C_6 alkanoyl, wherein each of the above is unsubstituted or substituted with 1, 2; or 3 groups that independently, halogen, $C_3 - C_6$ cycloalkyl, C_1-C_6 alkoxy, piperidinyl C₁-C₆ alkyl, morpholinyl C₁-C₆ alkyl, piperazinyl C₁-C₆ alkyl, OH, -NH₂, -NH(alkyl), -N(alkyl)(alkyl), $-O-C_1-C_4$ alkanoyl, C_1-C_4 alkyl, CF_3 , or OCF₃; or

 R_6 , R_7 , and the nitrogen to which they are attached form a morpholinyl, thiomorpholinyl, piperidinyl, pyrrolidinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C_1 - C_4 alkyl, C_1 - C_4 alkoxy, hydroxy, hydroxy C_1 - C_4 alkyl, C_1 - C_4 dihydroxyalkyl, or halogen.

Embodiment 47. Compounds according to embodiment 46, wherein

25 R₆ is hydrogen; and

 R_7 is C_1 - C_6 alkyl or C_1 - C_6 alkanoyl, each of which is optionally substituted with 1, 2, or 3 groups that are independently NH_2 , $NH(C_1$ - C_6 alkyl), $N(C_1$ - C_6 alkyl)(C_1 - C_6 alkyl), OH, SH, cyclopropyl, or C_1 - C_4 alkoxy;

30

Embodiment 48. Compounds according to embodiment 47, wherein

 X_c is $-C(0)NR_6R_7$.

Embodiment 49. Compounds according to embodiment 47, wherein

 X_c is NR_6R_7 , or $R_6R_7N_-(C_1-C_6 \text{ alkyl})$ -.

5

15

20

25

Embodiment 50. Compounds according to embodiment 38, wherein

Xa is hydrogen;

two of X_b , X_c , and X_d are hydrogen and the other is $-C(O)NR_6R_7$, $-(C_1-C_6 \text{ alkyl})-C(O)NR_6R_7, -NR_6R_7, R_6R_7N-(C_1-C_6 \text{ alkyl})-\text{ or }-CO_2-(C_1-C_6)\text{alkyl}; \text{ wherein}$

R₆ and R₇ are independently at each occurrence H, C₁-C₆ alkyl, C₁-C₆ alkoxy, C₁-C₆ alkoxy C₁-C₆ alkyl, C₁-C₆ alkoxycarbonyl, OH, C₁-C₆ hydroxyalkyl, C₁-C₆ dihydroxyalkyl, -(C₁-C₄)alkyl-CO₂-alkyl, pyridyl C₁-C₆ alkyl, C₁-C₆ alkanoyl, benzyl, phenyl C₁-C₆ alkoxy, or phenyl C₁-C₆ alkanoyl, wherein each of the above is unsubstituted or substituted with 1, 2, or 3 groups that are independently, halogen, C₃-C₆ cycloalkyl, C₁-C₆ alkoxy, piperidinyl C₁-C₆ alkyl, morpholinyl C₁-C₆ alkyl, piperazinyl C₁-C₆ alkyl, OH, NH₂, NH(alkyl), N(alkyl) (alkyl), -O-C₁-C₄ alkanoyl, C₁-C₄ alkyl, CF₃, or OCF₃; or

R₆, R₇, and the nitrogen to which they are attached form a morpholinyl, piperidinyl, pyrrolidinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C₁-C₄ alkyl, C₁-C₄ alkoxy, hydroxy, hydroxy C₁-C₄ alkyl, C₁-C₄ dihydroxyalkyl, or halogen; and

30 X_e is hydrogen, methyl, C_1 - C_2 alkoxy, or halogen.

Embodiment 51. Compounds according to embodiment 50, wherein

 X_b is $-C(O)NR_6R_7$, $-(C_1-C_6$ alkyl)- $C(O)NR_6R_7$, $-NR_6R_7$, or $R_6R_7N-(C_1-C_6$ alkyl)- wherein

R₆ is hydrogen or C₁-C₄ alkyl;

 R_7 is OH, C_1 - C_6 alkyl or C_1 - C_6 alkanoyl, wherein the alkyl and alkanoyl groups substituted with 1, 2, or 3 groups that are independently NH_2 , $NH(C_1$ - C_6 alkyl), $N(C_1$ - C_6 alkyl) (C_1 - C_6 alkyl), C_3 - C_6 cycloalkyl, OH, or C_1 - C_4 alkoxy.

Embodiment 52. Compounds according to embodiment 38, 10 wherein

X_a is halogen or methyl;

 X_b is H, $-NR_6R_7$, $R_6R_7N-(C_1-C_6 \text{ alkyl})-$, $-C(O)NR_6R_7$, or $-CO_2-(C_1-C_6)$ alkyl;

X_c is -NR₆R₇, R₆R₇N-(C₁-C₆ alkyl)-, -C(O)NR₆R₇, halogen, -CO₂-(C₁-C₆)alkyl, NH₂, NH(C₁-C₆ alkyl), N(C₁-C₆ alkyl)(C₁-C₆ alkyl),
-SO₂NH₂, -SO₂NH(C₁-C₆ alkyl), -SO₂N(C₁-C₆ alkyl)(C₁-C₆
alkyl), or piperazinyl, wherein the piperazinyl group is optionally substituted with 1 or 2 groups that are independently C₁-C₄ alkyl, C₁-C₄ alkoxy, hydroxy, hydroxy
C₁-C₄ alkyl, C₁-C₄ dihydroxyalkyl, or halogen;

X_d is hydrogen;

 X_e is H, methyl, NH_2 , $NH(C_1-C_6$ alkyl) or $N(C_1-C_6$ alkyl)(C_1-C_6 alkyl).

- 25 Embodiment 53. Compounds according to embodiment 38, wherein
- X₁, X₂, X_a, X_b, X_c, X_d, and X_e are independently selected from H, OH, halogen, CF₃, alkyl, OCF₃, pyridyl, pyridazinyl, pyrimidyl, pyrazinyl, thienyl, furyl, pyrrolyl, piperidinyl, piperazinyl, or C₃-C₇ cycloalkyl, wherein each of the above is optionally substituted with -NR₆R₇, -C(O)NR₆R₇, -(C₁-C₄ alkyl)-C(O)NR₆R₇, R₆R₇N-(C₁-C₆ alkyl)-, C₁-C₆ alkyl, C₁-C₆ alkoxy, or halogen.

20

25

Embodiment 54. Compounds according to embodiment 37, wherein

is a heteroaryl or heteroarylalkyl group, where each 5 heteroaryl is pyrazolyl, imidazolyl, furanyl, pyridyl, pyrimidinyl, pyridazinyl, pyrazinyl, pyrazolyl, imidazolyl, dihydroindolyl, dihydroisoindolyl, indolon-2yl, quinolinyl, isoquinolinyl, tetrahydroisoquinolinyl, dihydroisoquinolinyl, or indolyl, each of which is optionally substituted with 1, 2, 3, or 4 groups that are 10 independently $-C(0)NR_6R_7$, $-(C_1-C_4 \text{ alkyl})-C(0)NR_6R_7$, $-NR_6R_7$, hydroxy(C_1-C_4)alkyl, C_1-C_4 dihydroxyalkyl, hydroxy, halogen, haloalkyl, alkyl, haloalkoxy, R₆R₇N-(C₁alkyl) -, $-CO_2$ - $(C_1$ - $C_6)$ alkyl, $-N(R)C(O)NR_6R_7$, C_6 15 $-N(R)C(O)-(C_1-C_6)$ alkoxy; wherein

> R_6 and R_7 are independently at each occurrence H, C_1 - C_6 alkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkoxy C_1 - C_6 alkyl, C_1 - C_6 alkoxycarbonyl, OH, C_1-C_6 hydroxyalkyl, $C_1 - C_6$ dihydroxyalkyl, C_1-C_6 thiohydroxyalkyl, $-(C_1-C_4)$ alkyl- CO_2 -alkyl, pyridyl C_1 - C_6 alkyl, C_1 - C_6 alkanoyl, benzyl, phenyl C_1 - C_6 alkoxy, or phenyl C_1 - C_6 alkanoyl, wherein each of the above is unsubstituted or substituted with 1, 2, or 3 groups that are independently, halogen, $C_3 - C_6$ cycloalkyl, alkoxy, piperidinyl C1-C6 alkyl, morpholinyl C1-C6 alkyl, piperazinyl C_1 - C_6 alkyl, OH, SH, NH_2 , NH(alkyl), N(alkyl)(alkyl), $-O-C_1-C_4$ alkanoyl, C_1-C_4 alkyl, CF₃, or OCF

30 Embodiment 55. Compounds according to embodiment 54, wherein

 Y_2 , Y_4 , and Y are independently halogen; and Y_1 and Y_3 are both hydrogen.

Embodiment 56. Compounds according to embodiment 55, wherein

 X_1 and X_2 are independently H, methyl, $-NR_6R_7$, $R_6R_7N-(C_1-C_6$ alkyl)-, $-C(O)NR_6R_7$, $-(C_1-C_4$ alkyl)- $C(O)NR_6R_7$, C_1-C_6 hydroxyalkyl, C_1-C_6 dihydroxyalkyl, or $-(C_1-C_4$ alkyl)-morpholinyl.

Embodiment 57. Compounds according to embodiment 56, 10 wherein

R₅ is pyridyl C₁-C₆ alkyl, pyrimidinyl C₁-C₆ alkyl, or pyrazinyl C₁-C₆ alkyl, each of which is optionally substituted with 1, 2, or 3 groups that are independently hydroxy(C₁-C₄)alkyl, C₁-C₄ dihydroxyalkyl, OH, halogen, CF₃, (C₁-C₄)alkyl, OCF₃, -NR₆R₇, -(C₁-C₄ alkyl)-C(O)NR₆R₇, R₆R₇N-(C₁-C₆ alkyl)-, or -C(O)NR₆R₇.

Embodiment 58. Compounds according to embodiment 57, wherein

20 R₅ is of the formula:

$$\mathcal{L}_{N}$$

wherein

 Z_5 is hydroxy(C_1 - C_4)alkyl, C_1 - C_4 dihydroxyalkyl, OH, halogen, CF_3 , (C_1 - C_4)alkyl, OCF $_3$, -NR $_6$ R $_7$, R $_6$ R $_7$ N-(C_1 - C_6 alkyl)-, -(C_1 - C_4 alkyl)-C(O)NR $_6$ R $_7$, or -C(O)NR $_6$ R $_7$, wherein R $_6$ and R $_7$ at each occurrence are independently H, C_1 - C_6 alkyl optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkoxycarbonyl, halogen,

 C_3 - C_6 cycloalkyl, OH, SH, or C_1 - C_4 alkoxy.

30

25

Embodiment 59. Compounds according to embodiment 57, wherein

R₅ is of the formula:

5 wherein

 Z_5 is hydroxy(C_1 - C_4)alkyl, C_1 - C_4 dihydroxyalkyl, OH, halogen, CF_3 , (C_1 - C_4)alkyl, OCF₃, -NR₆R₇, R₆R₇N-(C_1 - C_6 alkyl)-, -(C_1 - C_4 alkyl)-C(O)NR₆R₇, or -C(O)NR₆R₇, wherein

R₆ and R₇ at each occurrence are independently H, C_1 - C_6 10 alkyl optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkoxycarbonyl, halogen, C_3 - C_6 cycloalkyl, OH, SH, or C_1 - C_4 alkoxy.

Embodiment 60. Compounds according to embodiment 57, wherein

$$Z_{10}$$
 N
 Z_{20} , wherein

 R_5 is of the formula:

 Z_{10} is H or methyl; and

 Z_{20} is $-(C_1-C_4$ alkyl)- $C(O)NR_6R_7$, hydroxy(C_1-C_4)alkyl, C_1-C_4 dihydroxyalkyl, OH, halogen, CF_3 , (C_1-C_4)alkyl, OCF₃, $-NR_6R_7$, $R_6R_7N-(C_1-C_6$ alkyl)-, or $-C(O)NR_6R_7$, wherein

 R_6 and R_7 at each occurrence are independently H, C_1 - C_6 alkyl optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkoxycarbonyl, halogen, C_3 - C_6 cycloalkyl, OH, SH, or C_1 - C_4 alkoxy.

Embodiment 61. Compounds according to embodiment 57 wherein

25

20

15

$$Z_{10}$$
 N
 Z_{20} where N

R₅ is of the formula:

 Z_{10} is H or methyl; and

$$\begin{split} &Z_{20} \text{ is } -(C_1-C_4 \text{ alkyl})-C(O)\,NR_6R_7, \text{ hydroxy}\,(C_1-C_4)\,\text{alkyl}, \quad C_1-C_4\\ &\text{dihydroxyalkyl}, \quad \text{OH}, \quad \text{halogen}, \quad CF_3, \quad (C_1-C_4)\,\text{alkyl}, \quad \text{OCF}_3,\\ &-NR_6R_7, \quad R_6R_7N-(C_1-C_6 \text{ alkyl})-, \quad \text{or } -C(O)\,NR_6R_7, \quad \text{wherein} \end{split}$$

 R_6 and R_7 at each occurrence are independently H, C_1 - C_6 alkyl optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkoxycarbonyl, halogen, C_3 - C_6 cycloalkyl, OH, SH, or C_1 - C_4 alkoxy.

10

15

20

5

Embodiment 62. Compounds according to embodiment 57, wherein

$$X = \begin{bmatrix} 210 \\ N \\ Z_{20} \end{bmatrix}$$
 wherein

 R_5 is of the formula:

 Z_{10} is H or methyl; and

$$\begin{split} &Z_{20} \text{ is } -(C_1-C_4 \text{ alkyl})-C(O)\,NR_6R_7, \text{ hydroxy}\,(C_1-C_4)\,\text{alkyl}, \text{ } C_1-C_4\\ &\text{dihydroxyalkyl}, \text{ OH, halogen, } CF_3, \text{ } (C_1-C_4)\,\text{alkyl}, \text{ } OCF_3,\\ &-NR_6R_7, \text{ } R_6R_7N-(C_1-C_6 \text{ alkyl})-, \text{ or } -C(O)\,NR_6R_7, \text{ wherein} \end{split}$$

 R_6 and R_7 at each occurrence are independently H, $C_1\text{-}C_6$ alkyl optionally substituted with 1, 2, or 3 groups that are independently $C_1\text{-}C_4$ alkoxycarbonyl, halogen, $C_3\text{-}C_6$ cycloalkyl, OH, SH, or $C_1\text{-}C_4$ alkoxy.

Embodiment 63. Compounds according to embodiment 57, wherein

$$Z_{10}$$
 N
 Z_{20} , wherein

25

 R_5 is of the formula: ${}^{\zeta}$ N ${}^{Z_{20}}$, wherein Z_{10} is H or methyl; and

5

10

15

20

25

Z₂₀ is -(C₁-C₄ alkyl)-C(O)NR₆R₇, hydroxy(C₁-C₄)alkyl, C₁-C₄
dihydroxyalkyl, OH, halogen, CF₃, (C₁-C₄)alkyl, OCF₃,
-NR₆R₇, R₆R₇N-(C₁-C₆ alkyl)-, or -C(O)NR₆R₇, wherein
R₆ and R₇ at each occurrence are independently H, C₁-C₆
alkyl optionally substituted with 1, 2, or 3 groups
that are independently C₁-C₄ alkoxycarbonyl, halogen,
C₃-C₆ cycloalkyl, OH, SH, or C₁-C₄ alkoxy.

Embodiment 64. Compounds according to embodiment 57, wherein

$$Z_{10}$$
 Z_{20} , wherein

 R_5 is of the formula: Z_{20} , where Z_{10} is H or methyl; and

$$\begin{split} &Z_{20} \text{ is } -(C_1-C_4 \text{ alkyl})-C(O)\,NR_6R_7, \text{ hydroxy}\,(C_1-C_4)\,\text{alkyl}, \quad C_1-C_4\\ &\text{dihydroxyalkyl}, \quad \text{OH, halogen, } \quad CF_3, \quad (C_1-C_4)\,\text{alkyl}, \quad \text{OCF}_3,\\ &-NR_6R_7, \quad R_6R_7N-(C_1-C_6 \text{ alkyl})-, \text{ or } -C(O)\,NR_6R_7, \text{ wherein} \end{split}$$

 R_6 and R_7 at each occurrence are independently H, C_1 - C_6 alkyl optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkoxycarbonyl, halogen, C_3 - C_6 cycloalkyl, OH, SH, or C_1 - C_4 alkoxy.

Embodiment 65. Compounds according to embodiment 57, wherein

$$Z_{20}$$
, whereir

 $$R_{5}$$ is of the formula: Z_{10} is H or methyl; and

 Z_{20} is $-(C_1-C_4$ alkyl)- $C(O)NR_6R_7$, hydroxy(C_1-C_4)alkyl, C_1-C_4 dihydroxyalkyl, OH, halogen, CF_3 , (C_1-C_4)alkyl, OCF₃, -NR₆R₇, R₆R₇N-(C_1-C_6 alkyl)-, or -C(O)NR₆R₇, wherein

 R_6 and R_7 at each occurrence are independently H, C_1 - C_6 alkyl optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkoxycarbonyl, halogen, C_3 - C_6 cycloalkyl, OH, SH, or C_1 - C_4 alkoxy.

5

Embodiment 66 Compounds according to embodiment 57, wherein

 R_5 is of the formula:

 Z_{10} is H or methyl; and

10

$$\begin{split} &Z_{20} \text{ is } -(C_1-C_4 \text{ alkyl})-C(O)\,NR_6R_7, \text{ hydroxy}\,(C_1-C_4)\,\text{alkyl}, \quad C_1-C_4\\ &\text{dihydroxyalkyl}, \quad \text{OH}, \quad \text{halogen}, \quad CF_3, \quad (C_1-C_4)\,\text{alkyl}, \quad \text{OCF}_3,\\ &-NR_6R_7, \quad R_6R_7N-(C_1-C_6 \text{ alkyl})-, \quad \text{or } -C(O)\,NR_6R_7, \quad \text{wherein} \end{split}$$

15

 R_6 and R_7 at each occurrence are independently H, C_1 - C_6 alkyl optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkoxycarbonyl, halogen, C_3 - C_6 cycloalkyl, OH, SH, or C_1 - C_4 alkoxy.

Embodiment 67. Compounds according to embodiment 57, wherein

$$Z_{10}$$
 Z_{20} , wherein

20

 R_5 is of the formula: 3 220 , wher

 \mathbf{Z}_{10} is H or methyl; and

 Z_{20} is $-(C_1-C_4$ alkyl)- $C(0)NR_6R_7$, hydroxy(C_1-C_4)alkyl, C_1-C_4 dihydroxyalkyl, OH, halogen, CF_3 , (C_1-C_4)alkyl, OCF₃, -NR₆R₇, R₆R₇N-(C_1-C_6 alkyl)-, or -C(0)NR₆R₇, wherein

25

 R_6 and R_7 at each occurrence are independently H, $C_1\text{-}C_6$ alkyl optionally substituted with 1, 2, or 3 groups that are independently $C_1\text{-}C_4$ alkoxycarbonyl, halogen, $C_3\text{-}C_6$ cycloalkyl, OH, SH, or $C_1\text{-}C_4$ alkoxy.

Embodiment 68. Compounds according to embodiment 3, wherein

R4 is H, alkyl optionally substituted with one or two groups independently CO₂R, that are -CO₂alkyl, $-C(0)NR_6R_7$ $-C(O)R_6$, $-N(R_{30})C(O)NR_{16}R_{17}$, $-N(R_{30})C(O)-(C_1-C_6)$ alkoxy, or 5 $-NR_6R_7$, $-C(0)NR_6R_7$, phenyl (C_1-C_6) alkoxy, phenyl (C_1-C_6) alkyl, hydroxyalkyl, dihydroxyalkyl, haloalkyl, (R_6R_7N) -alkoxy-, $R_6R_7NC(0)$ -alkoxy-, hydroxyalkoxy-, $R_6C(0)N(R_7)$ alkoxy-, alkoxyalkyl, or alkoxyalkoxy, wherein the phenyl groups are unsubstituted or substituted with 10 1, 2, 3, 4, or 5 groups that are independently halogen, hydroxy, alkoxy, alkyl, nitro, CF3, OCF3.

Embodiment 69. Compounds according to embodiment 1 wherein

R₁ is H, halogen, alkyl optionally substituted with C₁-C₄

alkoxycarbonyl, C₂-C₆ alkenyl optionally substituted with

C₁-C₄ alkoxycarbonyl, C₂-C₄ alkynyl, C₁-C₄ haloalkyl,

carboxaldehyde, C₁-C₄ hydroxyalkyl, phenyl(C₁-C₆)alkoxy,

benzyl, phenethyl, phenpropyl, CN, or phenyl(C₁
C₆)alkanoyl,

wherein the phenyl groups are unsubstituted or substituted with 1, 2, or 3 groups that are independently halogen, C_1 - C_4 alkyl, C_1 - C_4 alkoxy, nitro, CN, CF₃, OCF₃ or CO₂H;

 R_2 is OH, benzyloxy, phenyloxy, phenyloxy(C_1-C_6)alkyl, phenyl 25 $(C_1 - C_4)$ thioalkoxy, -OC(O)NH(CH₂)_nphenyl,-OC(O)N(alkyl)(CH₂)_nphenyl, di(C₁-C₆)alkylamino, C₂-C₆alkynyl, pyridyl, pyrimidyl, pyridazyl, pyrazolyl, imidazolyl, pyrrolyl, tetrahydroquinolinyl, 30 tetrahydroisoquinolinyl, tetrazolyl, pyrazinyl, benzimidazolyl, triazinyl, tetrahydrofuryl, piperidinyl, hexahydropyrimidinyl, thiazolyl, thienyl, or CO₂H, wherein n is 0, 1, 2, 3, 4, 5 or 6;

5

10

25

30

each of the above is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, NR_6R_7 , (C_1-C_4) haloalkyl, (C_1-C_4) haloalkoxy, (C_1-C_6) alkyl, pyridyl, $-(C_1-C_6)$ alkyl-N(R)- CO_2R_{30} , or NR_6R_7 - (C_1-C_6) alkyl-,

 R_4 is H, alkyl optionally substituted with one or two groups that are independently CO_2H , $-CO_2$ alkyl, -C(O)NRR, $-N(R_{30})C(O)NRR$, $-N(R_{30})C(O)-(C_1-C_6)$ alkoxy, or $-NR_6R_7$, phenyl (C_1-C_6) alkoxy, phenyl (C_1-C_6) alkyl, hydroxyalkyl, wherein the phenyl groups are unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, hydroxy, alkoxy, alkyl, nitro, CF_3 , or OCF_3 ; and

R₅ is phenyl(C₁-C₆)alkyl, (C₁-C₆)alkyl, phenyl, piperidinyl(C₁-C₆) alkyl, thienyl(C₁-C₆) alkyl, indolyl, quinolinyl, isoquinolinyl, isoindolyl, indol-2-onyl, indazolyl, indolyl (C₁-C₆) alkyl, quinolinyl(C₁-C₆) alkyl, isoquinolinyl(C₁-C₆) alkyl, isoindolyl(C₁-C₆) alkyl, indol-2-onyl(C₁-C₆) alkyl, naphthyl(C₁-C₆)alkyl, pyridyl(C₁-C₆)alkyl, pyridyl(C₁-C₆)alkyl, pyrimidyl(C₁-C₆)alkyl, pyrazinyl(C₁-C₆)alkyl, or wherein

each of the above is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently alkyl, halogen, alkoxy, benzyloxy, thioalkoxy, $-CO_2(C_1-C_5$ alkyl), CO_2H , CN, amidinooxime, NR_8R_9 , $NR_6R_7-(C_1-C_6$ alkyl)-, $-C(0)NR_6R_7$, amidino, CF_3 , or OCF_3 ;

 R_8 is hydrogen, C_1 - C_6 alkyl, C_1 - C_6 alkanoyl, phenyl C_1 - C_6 alkyl and phenyl C_1 - C_6 alkanoyl; and

 R_9 is aminoalkyl, mono C_1 - C_6 alkylamino C_1 - C_6 alkyl, di C_1 - C_6 alkylamino C_1 - C_6 alkyl, C_1 - C_6 alkyl, C_1 - C_6 alkanoyl, phenyl C_1 - C_4 alkyl, indazolyl, and phenyl C_1 - C_4 alkanoyl.

15

25

In this embodiment, it is preferred that when R_2 is benzyloxy, R_4 is H, and R_5 is benzyl or methyl, R_1 is not hydrogen; and

no more than two of $R_1,\ R_2,\ R_4,$ and R_5 are simultaneously 5 hydrogen.

Embodiment 70. Compounds according to embodiment 69 wherein

- R_1 is H, halogen, C_1 - C_4 alkyl optionally substituted with C_1 - C_4 alkoxycarbonyl, C_2 - C_4 alkenyl optionally substituted with C_1 - C_4 alkoxycarbonyl, C_2 - C_4 alkynyl, or carboxaldehyde;
 - R_2 is benzyloxy, OH, phenyloxy, phenyloxy(C_1 - C_6) alkyl, phenyl (C_1 - C_4) thioalkoxy, or pyridyl; wherein each of the above is optionally substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, -(C_1 - C_6) alkyl-N(R)- CO_2R_{30} , NR_6R_7 , (C_1 - C_4) haloalkyl, (C_1 - C_4) haloalkoxy, (C_1 - C_6) alkyl, pyridyl, or NR_6R_7 -(C_1 - C_6 alkyl)-.

Embodiment 71. Compounds according to embodiment 69 wherein

- R_4 is H, (C_1-C_6) alkyl optionally substituted with one or two groups that are independently CO_2H , $-CO_2$ alkyl, -C(O) NRR, $-N(R_{30})C(O)$ NRR, $-N(R_{30})C(O) (C_1-C_6)$ alkoxy, or $-NR_6R_7$, phenyl (C_1-C_6) alkoxy, or hydroxy (C_1-C_6) alkyl, wherein the phenyl groups are unsubstituted or substituted with 1, 2, or 3 groups that are independently halogen, hydroxy, C_1-C_4 alkoxy, C_1-C_4 alkyl, nitro, CF_3 , OCF_3 ; and
- R_5 is benzyl, phenethyl, phenpropyl, phenbutyl, (C_1-C_6) alkyl, phenyl, pyridyl, pyrimidyl, indolyl, indazolyl, indolyl (C_1-C_6) alkyl, naphthyl (C_1-C_6) alkyl, thienyl (C_1-C_6) alkyl, pyridyl (C_1-C_6) alkyl, pyrimidyl (C_1-C_6) alkyl, or pyrazinyl (C_1-C_6) alkyl, and wherein

each of the above is unsubstituted or substituted with 1, 2, or 3 groups that are independently alkyl, halogen, alkoxy, benzyloxy, thioalkoxy, $-CO_2(C_1-C_5$ alkyl), CF_3 , OCF_3 , CO_2H , CN, amidinooxime.

In this embodiment, it is preferred that when R_2 is benzyloxy, R_4 is H, and R_5 is benzyl or methyl, R_1 is not hydrogen; and

no more than two of $R_{1},\ R_{2},\ R_{4},$ and R_{5} are simultaneously hydrogen.

10

15

20

Embodiment 72. Compounds according to embodiment 69, wherein

 R_4 is H, (C_1-C_4) alkyl optionally substituted with one or two groups that are independently CO_2H , $-CO_2$ alkyl, -C(O) NRR, $-N(R_{30})C(O)$ NRR, $-N(R_{30})C(O)-(C_1-C_6)$ alkoxy, or $-NR_6R_7$, phenyl (C_1-C_6) alkoxy, benzyl, phenethyl, phenpropyl, or hydroxy (C_1-C_6) alkyl, wherein

the phenyl groups are unsubstituted or substituted with 1, 2, or 3 groups that are independently halogen, hydroxy, C_1 - C_4 alkoxy, C_1 - C_4 alkyl, nitro, CF_3 , OCF_3 ; and

R₅ is indolyl, quinolinyl, isoquinolinyl, isoindolyl, indol-2indolyl (C_1-C_6) alkyl, quinolinyl (C_1-C_6) isoquinolinyl (C_1-C_6) alkyl, isoindolyl (C_1-C_6) alkyl, indol-2-onyl(C₁-C₆) alkyl, each of which is unsubstituted or 25 substituted with 1, 2, or 3 groups that are independently halogen, CF_3 , OCF₃, $-CO_2CH_3$, $C_1 - C_4$ $C_1 - C_4$ alkyl, hydroxyalkyl, C_1 - C_4 alkoxy, $-CO_2(C_1-C_5$ alkyl), benzyloxy, - NR_8R_9 , NR_6R_7 - $(C_1$ - C_6 alkyl)-, -C(0) NR_6R_7 , or amidinooxime; 30 wherein

 R_6 and R_7 are independently at each occurrence H, alkyl, hydroxyalkyl, alkoxy, alkoxyalkyl, alkanoyl, phenylalkyl, phenylalkoxy, or phenylalkanoyl,

wherein each is unsubstituted or substituted with 1, 2, or 3 groups that are independently, halogen, hydroxy, C_1 - C_4 alkoxy, OH, SH, C_3 - C_6 cycloalkyl, C_1 - C_4 alkyl, CF_3 , or OCF_3 ; or

5 R_6 , R_7 , and the nitrogen to which they are attached form a morpholinyl, thiomorpholinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C_1 - C_4 alkyl, hydroxy, hydroxy C_1 - C_4 alkyl, or halogen.

10

Embodiment 73. Compounds according to embodiment 69 wherein

R₁ is chloro, bromo, iodo, or H; and

- is benzyl, phenethyl, phenpropyl, phenyl, quinolinyl, indolyl, isoquinolinyl, 15 isoindolyl, indol-2-onyl, indolyl $(C_1 - C_6)$ quinolinyl (C_1-C_6) alkyl, alkyl, isoquinolinyl(C_1-C_6) alkyl, isoindolyl(C_1-C_6) alkyl, indol-2-onyl(C_1 - C_6) alkyl, piperidinyl C_1 - C_4 alkyl, thienyl C_1 - C_4 alkyl, -CH₂-pyridyl, or pyridyl, each of which is 20 unsubstituted or substituted with 1, 2, or 3 groups that are independently C₁-C₄ alkyl, halogen, CF₃, OCF₃, C₁-C₄ hydroxyalkyl, C_1-C_4 alkoxy, $-CO_2(C_1-C_5$ alkyl), benzyloxy, NR_8R_9 , NR_6R_7 C_1 - C_4 alkyl, -C(0) NR_6R_7 , and amidinooxime; wherein
- R₆ and R₇ are independently at each occurrence H, alkyl, hydroxyalkyl, alkoxy, alkoxyalkyl, alkanoyl, phenylalkyl, phenylalkoxy, or phenylalkanoyl, wherein each is unsubstituted or substituted with 1, 2, or 3 groups that are independently, halogen, hydroxy, C₁-C₄ alkoxy, OH, SH, C₃-C₆ cycloalkyl, C₁-C₄ alkyl, CF₃, or OCF₃; or
 - R_6 , R_7 , and the nitrogen to which they are attached form a morpholinyl, thiomorpholinyl, or piperazinyl ring

10

which is optionally substituted with 1 or 2 groups that are independently C_1 - C_4 alkyl, hydroxy, hydroxy C_1 - C_4 alkyl, or halogen.

5 Embodiment 74. Compounds according to embodiment 73, wherein

 R_5 is benzyl, phenethyl, phenpropyl, or phenyl, each of which is unsubstituted or substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkyl, halogen, CF_3 , OCF_3 , - CO_2CH_3 , C_1 - C_4 hydroxyalkyl, C_1 - C_4 alkoxy, - $CO_2(C_1$ - C_5 alkyl), benzyloxy, NR_8R_9 , NR_6R_7 C_1 - C_4 alkyl, - $C(O)NR_6R_7$, and amidinooxime.

Embodiment 75. Compounds according to embodiment 73, 15 wherein

 R_5 is quinolinyl, indolyl, isoquinolinyl, isoindolyl, indol-2onyl, $indolyl(C_1-C_6)$ alkyl, quinolinyl (C_1-C_6) alkyl, isoquinolinyl (C_1-C_6) alkyl, isoindolyl (C_1-C_6) alkyl, indol-2-onyl(C_1 - C_6) alkyl, piperidinyl C_1 - C_4 alkyl, thienyl C_1 - C_4 20 alkyl, -CH₂-pyridyl, or pyridyl, each of which unsubstituted or substituted with 1, 2, or 3 groups that are independently C₁-C₄ alkyl, halogen, CF₃, OCF₃, -CO₂CH₃, C_1-C_4 hydroxyalkyl, C_1-C_4 alkoxy, $-CO_2(C_1-C_5)$ benzyloxy, NR_8R_9 , NR_6R_7 C_1-C_4 alkyl, $-C(0)NR_6R_7$ and 25 amidinooxime.

Embodiment 76. Compounds according to any one of embodiments 73, 74, or 75 wherein

R₂ is benzyloxy, or phenethyloxy;

each of the above is unsubstituted or substituted with 1, 2, or 3, groups that are independently $-(C_1-C_6)$ alkyl-N(R)- CO_2R_{30} , fluoro, chloro, bromo, CF₃, or (C_1-C_4) alkyl.

5

20

Embodiment 77. Compounds according to any one of embodiments 73, 74 or 75 wherein

 R_2 is phenyloxy(C_1 - C_6)alkyl, wherein the phenyl group is unsubstituted or substituted with 1, 2, or 3, groups that are independently -(C_1 - C_6)alkyl-N(R)- CO_2R_{30} , fluoro, chloro, bromo, CF_3 , or (C_1 - C_4)alkyl.

Embodiment 78. Compounds according to embodiment 1 or 69, wherein

10 R_1 is H, halogen, C_1 - C_4 alkyl optionally substituted with C_1 - C_4 alkoxycarbonyl, C_2 - C_4 alkenyl optionally substituted with C_1 - C_4 alkoxycarbonyl, C_2 - C_4 alkynyl, or carboxaldehyde.

Embodiment 79. Compounds according to embodiment 78, 15 wherein

R₂ is benzyloxy, OH, phenyloxy, phenyloxy(C_1 - C_6) alkyl, or phenyl (C_1 - C_4) thioalkoxy, wherein each of the above is optionally substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, -(C_1 - C_6) alkyl-N(R)- CO_2 R₃₀, NR₆R₇, (C_1 - C_4) haloalkyl, (C_1 - C_4) haloalkoxy, (C_1 - C_6) alkyl, pyridyl, or NR₆R₇-(C_1 - C_6 alkyl)-.

Embodiment 80. Compounds according to embodiment 79, wherein

- 25 R_4 is H, or (C_1-C_4) alkyl optionally substituted with one or two groups that are independently CO_2H , $-CO_2$ alkyl, -C(O)NRR, $-N(R_{30})C(O)NRR$, $-N(R_{30})C(O)-(C_1-C_6)$ alkoxy, OH, or $-NR_6R_7$.
- 30 Embodiment 81. Compounds according to embodiment 80, wherein
 - R_5 is phenyl, naphthyl, indolyl, pyridyl, quinolinyl, isoquinolinyl, isoindolyl, indol-2-onyl, indolyl(C_1-C_6)

5

10

15

20

alkyl, quinolinyl (C_1 - C_6) alkyl, isoquinolinyl (C_1 - C_6) alkyl, isoindolyl (C_1 - C_6) alkyl, indol-2-onyl (C_1 - C_6) alkyl, pyridazinyl, pyrimidinyl, or pyrazinyl, pyridazinyl (C_1 - C_6) alkyl, or pyrazinyl (C_1 - C_6) alkyl, each of which is unsubstituted or substituted with 1, 2, 3, 4 or 5 groups that are independently C_1 - C_4 alkyl, halogen, CF_3 , OCF_3 , $-CO_2CH_3$, C_1 - C_4 hydroxyalkyl, C_1 - C_4 alkoxy, $-CO_2(C_1$ - C_5 alkyl), benzyloxy, $-NR_8R_9$, $-C(O)NR_6R_7$, NR_6R_7 , C_1 - C_4 alkyl, and amidinooxime; wherein

- R₆ and R₇ are independently at each occurrence H, C₁-C₄ alkyl, C₁-C₄ hydroxyalkyl, C₁-C₄ alkoxy, C₁-C₄ alkoxy C₁-C₄ alkyl, C₁-C₄ alkanoyl, phenyl C₁-C₄ alkyl, phenyl C₁-C₄ alkoxy, or phenyl C₁-C₄ alkanoyl, wherein each is unsubstituted or substituted with 1, 2, or 3 groups that are independently, halogen, hydroxy, C₁-C₄ alkoxy, C₁-C₄ alkyl, OH, SH, C₃-C₆ cycloalkyl, CF₃, or OCF₃; or
- R_6 , R_7 , and the nitrogen to which they are attached form a morpholinyl, thiomorpholinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C_1 - C_4 alkyl, hydroxy, hydroxy C_1 - C_4 alkyl, or halogen.

Embodiment 82. Compounds according to embodiment 81, 25 wherein

- R_1 is H, halogen, methyl, ethyl, C_2 - C_4 alkenyl C_2 - C_4 alkynyl, or carboxaldehyde;
- R₂ is benzyloxy, OH, phenyloxy, phenyloxy(C₁-C₆)alkyl, or phenyl (C₁-C₄) thioalkoxy, wherein each of the above is optionally substituted with 1, 2, 3, or 4 groups that are independently halogen, -(C₁-C₆)alkyl-N(R)-CO₂R₃₀, NR₆R₇, NR₆R₇ C₁-C₄ alkyl, (C₁-C₄) haloalkyl, (C₁-C₄) haloalkoxy, (C₁-C₆) alkyl, or pyridyl; and

- R_4 is H, (C_1-C_4) alkyl optionally substituted with one or two groups that are independently CO_2H , $-CO_2$ alkyl, -C(O) NRR, $-N(R_{30})C(O)$ NRR, $-N(R_{30})C(O)-(C_1-C_6)$ alkoxy, OH, or $-NR_6R_7$.
- 5 Embodiment 83. Compounds according to embodiment 82, wherein
- $R_{5} \ \ is \ phenyl \ optionally \ substituted \ with \ 1, \ 2, \ 3, \ 4, \ or \ 5 \\ groups \ that \ are \ independently \ halogen, \ C_{1}-C_{6} \ alkyl, \ -NR_{10}R_{11}, \ C_{1}-C_{4} \ alkoxy, \ -C(O)NR_{10}R_{11}, \ -CO_{2}H, \ NR_{10}R_{11} \ C_{1}-C_{4} \\ alkyl, \ C_{1}-C_{6} \ alkoxy, \ -C(O)NR_{10}R_{11}, \ -CO_{2}H, \ NR_{10}R_{11} \ C_{1}-C_{4} \\ alkyl, \ C_{1}-C_{6} \ alkoxy, \ C_{1}-C_{6} \ alkoxycarbonyl, \ C_{1}-C_{6} \ alkoxy, \\ CHO, \ -SO_{2}NH_{2}, \ C_{1}-C_{4} \ haloalkyl, \ C_{1}-C_{6} \ hydroxyalkyl, \ -C_{1}-C_{4} \\ alkyl-NR_{12}C(O)NR_{13}R_{14}, \ -C_{1}-C_{4} \ alkyl-NR_{12}C(O)-(C_{1}-C_{4} \ alkyl)-NR_{12}C(O)-(C_{1}-C_{4} \ alkyl-NR_{12}C(O)-(C_{1}-C_{4} \ alkyl)-R_{15}, \ wherein$
- 15 R_{10} and R_{11} at each occurrence are independently H, C_1 - C_6 alkyl, amino C_1 - C_4 alkyl, NH(C_1 - C_6 alkyl)alkyl, N(C_1 - C_6 alkyl)(C_1 - C_6 alkyl) C_1 - C_6 alkyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 alkoxy C_1 - C_6 alkyl, OH, -SO₂ (C_1 - C_6 alkyl), or C_1 - C_6 alkanoyl, or
- 20 R₁₀, R₁₁, and the nitrogen to which they are attached form a piperidinyl, pyrrolidinyl, piperazinyl, or a morpholinyl ring optionally substituted with 1 or 2 groups that are independently alkyl or halogen,

 R_{12} is H or C_1 - C_6 alkyl;

- 25 R₁₃ and R₁₄ are independently H or C₁-C₆ alkyl; or R₁₃ and R₁₄ and the nitrogen to which they are attached form a morpholinyl ring; and R₁₅ is C₁-C₆ alkoxy; -OC(O)C₁-C₆ alkyl, OH.
- 30 Embodiment 84. Compounds according to embodiment 83, wherein
 - R_5 is phenyl optionally substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, $C_1\text{-}C_6$ alkyl, -

5

10

15

 $NR_{10}R_{11}$, $NR_{10}R_{11}$ C_1 - C_6 alkyl, C_1 - C_4 alkoxy, or -C(0) $NR_{10}R_{11}$, --C1-C4 alkyl-NR₁₀R₁₁, $C_1 - C_6$ alkyl, CO_2H , $C_1 - C_6$ alkoxycarbonyl, $C_1 - C_6$ alkoxy, CHO, -SO₂NH₂ $C_1 - C_4$ haloalkyl, C₁-C₆ hydroxyalkyl, -C₁-C₄ alkyl-NR₁₂C(0)NR₁₃R₁₄, $-C_1-C_4$ alkyl-NR₁₂C(0)-(C₁-C₄ alkyl)-NR₁₃R₁₄, -C₁-C₄ alkyl- $NR_{12}C(O)OR_{15}$, or $-C_1-C_4$ alkyl- $NR_{12}C(O)-(C_1-C_4$ alkyl)- R_{15} wherein

 R_{10} and R_{11} at each occurrence are independently H, C_1 - C_6 alkyl, amino C_1 - C_4 alkyl, NH(C_1 - C_6 alkyl)alkyl, N(C_1 - C_6 alkyl)(C_1 - C_6 alkyl) C_1 - C_6 alkyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 alkoxy C_1 - C_6 alkyl, OH, -SO₂ (C_1 - C_6 alkyl), or C_1 - C_6 alkanoyl,

 R_{12} is H or C_1 - C_6 alkyl;

 R_{13} and R_{14} are independently H or C_1 - C_6 alkyl; or

 R_{13} and R_{14} and the nitrogen to which they are attached form a morpholinyl ring; and

 R_{15} is C_1 - C_6 alkoxy; -OC(O) C_1 - C_6 alkyl, OH.

Embodiment 85. Compounds according to embodiment 84, 20 wherein

- R_5 is phenyl optionally substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, C_1 - C_6 alkyl, $NR_{10}R_{11}$, $NR_{10}R_{11}$ C_1 - C_4 alkyl, C_1 - C_4 alkoxy, -C(O) $NR_{10}R_{11}$, wherein
- 25 R_{10} and R_{11} at each occurrence are independently H, C_1 - C_6 alkyl, amino C_1 - C_4 alkyl, NH(C_1 - C_6 alkyl)alkyl, N(C_1 - C_6 alkyl)(C_1 - C_6 alkyl) C_1 - C_6 alkyl) C_1 - C_6 alkyl, C_1 - C_6 alkyl, C_1 - C_6 alkyl, C_1 - C_6 alkyl, C_1 - C_6 alkyl), C_1 - C_6 alkyl).

30

Embodiment 86. Compounds according to embodiment 85, wherein

- R_5 is phenyl optionally substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, C_1 - C_6 alkyl, $NR_{10}R_{11}$, or C_1 - C_4 alkoxy.
- 5 Embodiment 87. Compounds according to embodiment 85, wherein

 R_5 is substituted with at least one -C(0) $NR_{10}R_{11}$.

Embodiment 88. Compounds according to embodiment 87, 10 wherein

 R_{10} and R_{11} at each occurrence are independently H, C_1 - C_6 alkyl, amino C_1 - C_4 alkyl, NH(C_1 - C_6 alkyl)alkyl, N(C_1 - C_6 alkyl)(C_1 - C_6 alkyl) C_1 - C_6 alkyl, C_1 - C_6 alkyl, C_1 - C_6 alkyl.

15

Embodiment 89. Compounds according to embodiment 88, wherein

 R_{10} is H.

20 Embodiment 90. Compounds according to embodiment 87, wherein

 R_{10} and R_{11} at each occurrence are independently H, C_1 - C_6 alkyl, OH, -SO₂ (C_1 - C_6 alkyl), C_1 - C_6 alkanoyl.

- 25 Embodiment 91. Compounds according to embodiment 82, wherein
- R₅ is phenyl optionally substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, C₁-C₆ alkyl, NH₂, NH(C₁-C₆ alkyl), N(C₁-C₆ alkyl)(C₁-C₆ alkyl), C₁-C₄ alkoxy, -C(O)NR₁₀R₁₁, wherein each of the above alkyl groups is optionally substituted with 1 or 2 groups that are independently OH, or methoxy; wherein

 R_{10} , R_{11} , and the nitrogen to which they are attached form a piperidinyl, pyrrolidinyl, piperazinyl, or a morpholinyl ring optionally substituted with 1 or 2 groups that are independently alkyl or halogen.

5

20

Embodiment 92. Compounds according to embodiment 82, wherein

R₅ is phenyl optionally substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, C₁-C₆ alkyl, C₁-C₄

10 alkoxy, -CO₂H, -C₁-C₄ alkyl-NR₁₀R₁₁, C₁-C₆ alkoxycarbonyl,

C₁-C₆ alkoxy, CHO, -SO₂NH₂, C₁-C₄ haloalkyl, C₁-C₆

hydroxyalkyl, -C₁-C₄ alkyl-NR₁₂C(O)NR₁₃R₁₄, -C₁-C₄ alkyl-NR₁₂C(O)-(C₁-C₄ alkyl)-NR₁₃R₁₄, -C₁-C₄ alkyl-NR₁₂C(O)OR₁₅, or

-C₁-C₄ alkyl-NR₁₂C(O)-(C₁-C₄ alkyl)-R₁₅, -OC(O)C₁-C₆ alkyl,

or OH wherein

 R_{12} is H or C_1 - C_6 alkyl;

 R_{13} and R_{14} are independently H or $C_1\text{-}C_6$ alkyl; or R_{13} and R_{14} and the nitrogen to which they are attached form a morpholinyl ring;

 R_{15} is C_1 - C_6 alkoxy.

Embodiment 93. Compounds according to embodiment 92, wherein

 R_5 is phenyl optionally substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, C_1 - C_4 alkyl, C_1 - C_4 alkoxy, $-CO_2H$, C_1 - C_4 alkoxycarbonyl, C_1 - C_4 alkoxy, CHO, $-SO_2NH_2$, C_1 - C_4 haloalkyl, C_1 - C_4 hydroxyalkyl.

Embodiment 94. Compounds according to embodiment 92, 30 wherein

 R_5 is phenyl optionally substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, C_1 - C_4 alkyl, C_1 - C_4 alkyr, $-C_0$ - C_4 , $-C_1$ - C_4 alkyl- $-R_{10}$ R₁₁, $-C_1$ - $-C_4$ alkyl- $-R_{10}$ R₁₁, $-C_1$ - $-C_4$ alkyl- $-R_{10}$ R₁₂, $-C_1$ - $-C_4$ alkyl- $-R_{10}$ R₁₂, $-C_1$ - $-C_4$ alkyl- $-R_1$ - $-R_1$ -

5

$$\begin{split} & NR_{12}C\left(O\right)NR_{13}R_{14}, \quad -C_1-C_4 \quad alkyl-NR_{12}C\left(O\right)-\left(C_1-C_4 \quad alkyl\right)-NR_{13}R_{14}, \quad -C_1-C_4 \quad alkyl-NR_{12}C\left(O\right)OR_{15}, \quad \text{or} \quad -C_1-C_4 \quad alkyl-NR_{12}C\left(O\right)-\left(C_1-C_4 \quad alkyl\right)-R_{15}, \quad \text{or} \quad -OC\left(O\right)C_1-C_6 \quad alkyl, \quad \text{wherein} \end{split}$$

 R_{12} is H or C_1 - C_6 alkyl;

 R_{13} and R_{14} are independently H or C_1 - C_6 alkyl; or

 R_{13} and R_{14} and the nitrogen to which they are attached form a morpholinyl ring;

 R_{15} is C_1 - C_6 alkoxy.

10 Embodiment 95. Compounds according to embodiment 94, wherein

 R_5 is phenyl optionally substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, $C_1\text{-}C_4$ alkyl, $C_1\text{-}C_4$ alkoxy, $-\text{CO}_2\text{H}$, $-\text{C}_1\text{-}C_4$ alkyl-NR₁₀R₁₁, $-\text{C}_1\text{-}C_4$ alkyl-NR₁₂C(O)NR₁₃R₁₄, $-\text{C}_1\text{-}C_4$ alkyl-NR₁₂C(O)-(C₁-C₄ alkyl)-NR₁₃R₁₄, wherein

 R_{12} is H or C_1 - C_6 alkyl;

 R_{13} and R_{14} are independently H or C_1 - C_6 alkyl; or

 R_{13} and R_{14} and the nitrogen to which they are attached form a morpholinyl ring.

Embodiment 96. Compounds according to any one of embodiments 92, 93, 94, or 95, wherein the phenyl group is substituted with two groups that are meta to each other.

25

15

20

Embodiment 97. Compounds according to any one of embodiments 92, 93, 94, or 95, wherein the phenyl group is substituted with two groups that are para to each other.

- 30 Embodiment 98. Compounds according to embodiment 82, wherein
 - R₅ is indolyl, pyridyl, pyridazinyl, pyrimidinyl, indazolyl, quinolinyl, isoquinolinyl, isoindolyl, indol-2-onyl,

pyridazinyl, pyrimidinyl, or pyrazinyl, , each of which is unsubstituted or substituted with 1, 2, 3, 4 or 5 groups that are independently C_1 - C_4 alkyl, halogen, CF_3 , OCF_3 , $-CO_2CH_3$, C_1 - C_4 hydroxyalkyl, C_1 - C_4 alkoxy, $-CO_2(C_1$ - C_5 alkyl), benzyloxy, NR_8R_9 , NR_6R_7 C_1 - C_4 alkyl, $-C(O)NR_6R_7$, or amidinooxime; wherein

 R_6 and R_7 are independently at each occurrence H, C_1 - C_4 alkyl, C_1 - C_4 hydroxyalkyl, C_1 - C_4 alkoxy, C_1 - C_4 alkoxy C_1 - C_4 alkyl, C_1 - C_4 alkanoyl, phenyl C_1 - C_4 alkoxy, or phenyl C_1 - C_4 alkanoyl, wherein each is unsubstituted or substituted with 1, 2, or 3 groups that are independently, halogen, OH, SH, C_3 - C_6 cycloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 alkyl, OH, CF_3 , or OCF_3 ; or

 R_6 , R_7 , and the nitrogen to which they are attached form a morpholinyl, thiomorpholinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C_1 - C_4 alkyl, hydroxy, hydroxy C_1 - C_4 alkyl, or halogen.

20

30

5

10

15

Embodiment 99. Compounds according to embodiment 98, wherein

R₅ is indolyl, pyridyl, pyrimidinyl, indazolyl, or pyrazinyl, each of which is unsubstituted or substituted with 1, 2, 3, or 4 groups that are independently C₁-C₄ alkyl, halogen, CF₃, OCF₃, -CO₂CH₃, C₁-C₄ hydroxyalkyl, C₁-C₄ alkoxy, -CO₂(C₁-C₅ alkyl), benzyloxy, -C(O)NR₆R₇, -NR₈R₉, NR₆R₇ C₁-C₄ alkyl, and amidinooxime; wherein

 R_6 and R_7 are independently at each occurrence H, C_1 - C_4 alkyl, C_1 - C_4 hydroxyalkyl, C_1 - C_4 alkoxy, C_1 - C_4 alkoxy C_1 - C_4 alkyl, C_1 - C_4 alkanoyl, phenyl C_1 - C_4 alkoxy, or phenyl C_1 - C_4 alkanoyl, wherein each is unsubstituted or substituted with 1, 2, or 3

10

15

groups that are independently, halogen, OH, SH, C_3 - C_6 cycloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 alkyl, OH, CF₃, or OCF₃.

- 5 Embodiment 100. Compounds according to embodiment 99, wherein
 - R_5 is indolyl, pyridyl, or pyrazinyl, each of which is unsubstituted or substituted with 1, 2, 3, or 4 groups that are independently C_1 - C_4 alkyl, halogen, CF_3 , OCF_3 , $-CO_2CH_3$, C_1 - C_4 hydroxyalkyl, C_1 - C_4 alkoxy, $-CO_2(C_1$ - C_5 alkyl), benzyloxy, $-C(O)NR_6R_7$, NR_8R_9 , NR_6R_7 - C_1 - C_4 alkyl-, and amidinooxime; wherein
 - R₆ and R₇ are independently at each occurrence H, C₁-C₄ alkyl, C₁-C₄ hydroxyalkyl, C₁-C₄ alkoxy, C₁-C₄ alkoxy C₁-C₄ alkyl, each of which is optionally substituted with 1, 2, or 3 groups that are independently halogen, OH, SH, C₃-C₆ cycloalkyl, C₁-C₄ alkoxy, C₁-C₄ alkyl, OH, CF₃, or OCF₃.
- 20 Embodiment 101. Compounds according to embodiment 98, wherein
- R₅ is indolyl, pyridyl, pyridazinyl, pyrimidinyl, or pyrazinyl, each of which is unsubstituted or substituted with 1, 2, 3, 4 or 5 groups that are independently C₁-C₄ alkyl, halogen, CF₃, OCF₃, -CO₂CH₃, C₁-C₄ hydroxyalkyl, C₁-C₄ alkoxy, -CO₂(C₁-C₅ alkyl), benzyloxy, -C(O)NH₂, -C(O)NH(C₁-C₆ alkyl) wherein the alkyl group is optionally substituted with OH or methoxy, -C(O)N(C₁-C₆ alkyl) (C₁-C₆ alkyl) wherein each alkyl group is independently and optionally substituted with OH or methoxy, -C(O)NR₆R₇, NR₆R₉, NR₆R₇ C₁-C₄ alkyl, -C₁-C₄ alkyl-NH₂, -C₁-C₄ alkyl-NH(C₁-C₆ alkyl) wherein each alkyl group is independently and optionally substituted with OH or methoxy, -C₁-C₄

5

25

30

alkyl- $N(C_1-C_6$ alkyl) $(C_1-C_6$ alkyl) wherein each alkyl group is independently and optionally substituted with OH or methoxy, and amidinooxime; wherein

 R_6 , R_7 , and the nitrogen to which they are attached form a morpholinyl, thiomorpholinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C_1 - C_4 alkyl, hydroxy, hydroxy C_1 - C_4 alkyl, or halogen.

10 Embodiment 102. Compounds according to any one of embodiments 98, 99, 100, or 101, , wherein

R₁ is H, halogen, methyl, or carboxaldehyde;

 R_2 is benzyloxy, phenyloxy, phenyloxy(C_1-C_6)alkyl, or phenyl (C_1-C_4) thioalkoxy, wherein each of the above 15 optionally substituted with 1, 2, 3, or 4 groups that are independently halogen, $-(C_1-C_6)$ alkyl-N(R)-CO₂R₃₀, NR₆R₇, haloalkyl, (C_1-C_4) haloalkoxy, $(C_1 - C_6)$ (C_1-C_4) $NR_6R_7(C_1-C_6)$ alkyl, pyridyl, morpholinyl, thiomorpholinyl, piperazinyl pyridyl (C_1-C_6) alkyl, morpholinyl (C_1-C_6) alkyl, thiomorpholinyl (C_1-C_6) alkyl, or 20 piperazinyl(C₁-C₆)alkyl wherein the pyridyl, morpholinyl, thiomorpholinyl, and piperazinyl rings are optionally substituted with 1 or 2 groups that are independently C1-C4 alkyl, or halogen; wherein

 R_6 and R_7 are independently at each occurrence H, C_1 - C_4 alkyl optionally substituted with 1 or two groups that are independently OH, halogen or methoxy, C1-C4 hydroxyalkyl, C₁-C₄ alkoxy, C₁-C₄ alkoxy C₁-C₄ alkyl, C_1-C_4 alkanoyl, benzyl, benzyloxy, or phenyl C_1-C_4 is alkanoyl, wherein each unsubstituted orsubstituted with 1, 2, or 3 groups that independently, halogen, OH, SH, C3-C6 cycloalkyl, C1- C_4 alkoxy, C_1 - C_4 alkyl, CF_3 , or OCF_3 , and

 R_4 is H, (C_1-C_3) alkyl optionally substituted with one or two groups that are independently CO_2H , $-CO_2$ alkyl, -C(O) NRR, $-N(R_{30})C(O)$ NRR, $-N(R_{30})C(O)-(C_1-C_6)$ alkoxy, $-NR_6R_7$, $NR_6R_7C_1-C_4$ alkyl, or hydroxy(C_1-C_3) alkyl.

5

15

30

Embodiment 103. Compounds according to embodiment 102, wherein R_1 is H or halogen.

- 10 Embodiment 104. Compounds according to embodiment 80, wherein
 - R₅ is phenyl(C₁-C₆) alkyl, (C₁-C₆) alkyl, piperidinyl(C₁-C₆) alkyl, thienyl(C₁-C₆) alkyl, indolyl (C₁-C₆) alkyl, naphthyl(C₁-C₆) alkyl, pyridyl(C₁-C₆) alkyl, pyrimidyl(C₁-C₆) alkyl, quinolinyl(C₁-C₆) alkyl, isoquinolinyl(C₁-C₆) alkyl, isoindolyl(C₁-C₆) alkyl, indol-2-onyl(C₁-C₆) alkyl, pyridazinyl(C₁-C₆) alkyl, pyrazinyl(C₁-C₆) alkyl, or pyrazinyl(C₁-C₆) alkyl, wherein
- each of the above is unsubstituted or substituted with 1,

 2, 3, 4, or 5 groups that are independently alkyl,
 halogen, alkoxy, benzyloxy, hydroxyalkyl,
 thioalkoxy, -CO₂(C₁-C₅ alkyl), CO₂H, CN, amidinooxime,
 NR₈R₉, NR₆R₇-(C₁-C₆ alkyl)-, -C(O)NR₆R₇, amidino, CF₃,
 or OCF₃;
- 25 R_8 is hydrogen, C_1 - C_6 alkyl, C_1 - C_6 alkanoyl, phenyl C_1 - C_6 alkyl and phenyl C_1 - C_6 alkanoyl; and
 - R_9 is aminoalkyl, mono C_1 - C_6 alkylamino C_1 - C_6 alkyl, di C_1 - C_6 alkylamino C_1 - C_6 alkyl, C_1 - C_6 alkyl, C_1 - C_6 alkanoyl, phenyl C_1 - C_4 alkyl, indazolyl, and phenyl C_1 - C_4 alkanoyl.

In this embodiment, it is preferred that when R_2 is benzyloxy, R_4 is H, and R_5 is benzyl or methyl, R_1 is not hydrogen; and

no more than two of $R_1,\ R_2,\ R_4,$ and R_5 are simultaneously hydrogen.

Embodiment 105. Compounds according to embodiment 5 104, wherein

- R₅ is phenyl(C₁-C₆)alkyl, which is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently alkyl, halogen, alkoxy, benzyloxy, thioalkoxy, -CO₂(C₁-C₅ alkyl), CO₂H, CN, amidinooxime, NR₈R₉, NR₆R₇-(C₁-C₆ alkyl)-, -C(O)NR₆R₇, amidino, CF₃, or OCF₃; wherein
- R₆ and R₇ are independently at each occurrence H, C₁-C₄ alkyl, C₁-C₄ hydroxyalkyl, C₁-C₄ alkoxy, C₁-C₄ alkoxy C₁-C₄ alkyl, C₁-C₄ alkanoyl, phenyl C₁-C₄ alkyl, phenyl C₁-C₄ alkoxy, or phenyl C₁-C₄ alkanoyl, wherein each is unsubstituted or substituted with 1, 2, or 3 groups that are independently, halogen, OH, SH, C₃-C₆ cycloalkyl, C₁-C₄ alkoxy, C₁-C₄ alkyl, CF₃, or OCF₃; or
- R₆, R₇, and the nitrogen to which they are attached form a

 20 morpholinyl, thiomorpholinyl, or piperazinyl ring
 which is optionally substituted with 1 or 2 groups
 that are independently C₁-C₄ alkyl, hydroxy, hydroxy
 C₁-C₄ alkyl, or halogen;
 - R_8 is hydrogen, C_1 - C_6 alkyl, C_1 - C_6 alkanoyl, phenyl C_1 - C_6 alkyl and phenyl C_1 - C_6 alkanoyl; and
 - R_9 is aminoalkyl, mono $C_1\text{-}C_6$ alkylamino $C_1\text{-}C_6$ alkyl, di $C_1\text{-}C_6$ alkylamino $C_1\text{-}C_6$ alkyl, $C_1\text{-}C_6$ alkyl, $C_1\text{-}C_6$ alkanoyl, phenyl $C_1\text{-}C_4$ alkyl, indazolyl, and phenyl $C_1\text{-}C_4$ alkanoyl.

30

25

10

Embodiment 106. Compounds according to embodiment 105, wherein

5

- R_5 is phenyl(C_1 - C_6)alkyl, which is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently CN, halogen, C_1 - C_4 alkoxy, C_1 - C_4 thioalkoxy, C_1 - C_4 haloalkyl, C_1 - C_4 alkyl, C_1 - C_4 haloalkyl, C_1 - C_4 haloalkyl, C_1 - C_4 haloalkyl, wherein
 - R_{20} and R_{21} are independently H, C_1 - C_6 alkyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 alkoxy C_1 - C_6 alkyl, or
- R₂₀, R₂₁, and the nitrogen to which they are attached form a piperazinyl, or morpholinyl ring, each of which is optionally substituted with 1 or 2 groups that are independently alkyl or halogen.
 - Embodiment 107. Compounds according to embodiment 106, wherein
- 15 R_5 is phenyl(C_1 - C_4)alkyl, which is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently CN, halogen, C_1 - C_4 alkoxy, C_1 - C_4 haloalkyl, C_1 - C_4 alkyl, C_1 - C_4 haloalkoxy, -C(0)NR₂₀R₂₁, wherein
 - R_{20} and R_{21} are independently H, C_1 - C_6 alkyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 alkoxy C_1 - C_6 alkyl, or
 - R_{20} , R_{21} , and the nitrogen to which they are attached form a piperazinyl, or morpholinyl ring, each of which is optionally substituted with 1 or 2 groups that are independently alkyl or halogen.

25

20

- Embodiment 108. Compounds according to embodiment 107, wherein
- R₅ is benzyl or phenethyl, each of which is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently CN, halogen, C₁-C₄ alkoxy, CF₃, OCF₃, C₁-C₄ alkyl, -C(O)NR₂₀R₂₁, wherein
 - R_{20} and R_{21} are independently H, C_1 - C_6 alkyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 alkoxy C_1 - C_6 alkyl, or

 R_{20} , R_{21} , and the nitrogen to which they are attached form a piperazinyl, or morpholinyl ring, each of which is optionally substituted with 1 or 2 groups that are independently alkyl or halogen.

5

10

Embodiment 109. Compounds according to embodiment 108, wherein

 R_5 is benzyl or phenethyl, each of which is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, methoxy, ethoxy, CF_3 , OCF_3 , methyl, ethyl, or $-C(O)NR_{20}R_{21}$, wherein

 R_{20} and R_{21} are independently H, C_1 - C_6 alkyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 alkoxy C_1 - C_6 alkyl,

15 Embodiment 110. Compounds according to embodiment 108, wherein

 R_5 is benzyl or phenethyl, each of which is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, methoxy, ethoxy, CF_3 , OCF_3 , methyl, ethyl, or $-C(O)NR_{20}R_{21}$, wherein

 R_{20} , R_{21} , and the nitrogen to which they are attached form a piperazinyl, or morpholinyl ring, each of which is optionally substituted with 1 or 2 groups that are independently alkyl or halogen.

25

20

Embodiment 111. Compounds according to embodiment 109 or embodiment 110, wherein

 R_5 is substituted on the phenyl ring with 1, 2, 3, 4, or 5 groups and wherein there is a group at the para position of the phenyl.

Embodiment 112. Compounds according to embodiment 103, wherein

. 15

30

 R_5 is piperidinyl(C_1 - C_6) alkyl, thienyl(C_1 - C_6) alkyl, indolyl (C_1-C_6) alkyl, pyridyl (C_1-C_6) alkyl, pyrimidyl (C_1-C_6) alkyl, quinolinyl(C₁-C₆) alkyl, isoquinolinyl(C_1 - C_6) alkyl, $indol-2-onyl(C_1-C_6)$ isoindolyl (C_1-C_6) alkvl, 5 pyridazinyl (C_1-C_6) alkyl, or pyrazinyl (C_1-C_6) alkyl, or pyrazinyl (C_1-C_6) alkyl, or pyrazinyl (C_1-C_6) alkyl, wherein each of the above is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently C_1-C_6 alkyl, halogen, C₁-C₆ alkoxy, C₁-C₆ hydroxyalkyl, benzyloxy, C_1 - C_6 thioalkoxy, $-CO_2(C_1-C_5$ alkyl), CO_2H , 10 amidinooxime, NR₈R₉, $NR_6R_7 - (C_1 - C_6)$ alkyl)-, $-C(0)NR_6R_7$, amidino, CF_3 , or OCF_3 ;

 R_8 is hydrogen, C_1 - C_6 alkyl, C_1 - C_6 alkanoyl, phenyl C_1 - C_6 alkyl and phenyl C_1 - C_6 alkanoyl; and

 R_9 is aminoalkyl, mono C_1 - C_6 alkylamino C_1 - C_6 alkyl, di C_1 - C_6 alkylamino C_1 - C_6 alkyl, C_1 - C_6 alkyl, C_1 - C_6 alkanoyl, phenyl C_1 - C_4 alkyl, indazolyl, and phenyl C_1 - C_4 alkanoyl.

In this embodiment, it is preferred that when R_2 is 20 benzyloxy, R_4 is H, and R_5 is benzyl or methyl, R_1 is not hydrogen; and

no more than two of $R_{1},\ R_{2},\ R_{4},$ and R_{5} are simultaneously hydrogen.

- 25 Embodiment 113. Compounds according to embodiment 112, wherein
 - R_5 is piperidinyl(C_1-C_4) alkyl, thienyl(C_1-C_4) alkyl, indolyl (C_1-C_4) alkyl, pyridyl(C_1-C_4) alkyl, pyrimidyl(C_1-C_4) alkyl, or pyrazinyl(C_1-C_4) alkyl, each of which is unsubstituted.

Embodiment 114. Compounds according to embodiment 112, wherein

	R_5	is indolyl (C_1-C_4) alkyl, pyrimidyl (C_1-C_4) alkyl, or
		pyrazinyl(C_1 - C_4)alkyl, wherein
		each of the above is unsubstituted or substituted with 1,
		2, 3, or 4 groups that are independently C_1 - C_6 alkyl,
5		halogen, C_1 - C_6 alkoxy, C_1 - C_6 hydroxyalkyl, benzyloxy,
	•	C_1 - C_6 thioalkoxy, $-CO_2(C_1-C_5$ alkyl), CO_2H , CN ,
		amidinooxime, NR_8R_9 , NR_6R_7 -(C_1 - C_6 alkyl)-, amidino,
		-C(O)NR $_{20}$ R $_{21}$, CF $_3$, or OCF $_3$; wherein
	,	R_{6} and R_{7} are independently at each occurrence $H\text{, }C_{1}\text{-}C_{4}$
10		alkyl, C_1 - C_4 hydroxyalkyl, C_1 - C_4 alkoxy, C_1 - C_4 alkoxy
		C_1-C_4 alkyl, C_1-C_4 alkanoyl, benzyl, benzyloxy, or
		phenyl C_1 - C_4 alkanoyl, wherein each is unsubstituted
		or substituted with 1, 2, or 3 groups that are
		independently, halogen, OH, SH, C_3 - C_6 cycloalkyl, C_1 -
15		C_4 alkoxy, C_1 - C_4 alkyl, CF_3 , or OCF_3 ; or
		R_6 , R_7 , and the nitrogen to which they are attached form a
		morpholinyl, thiomorpholinyl, or piperazinyl ring
		which is optionally substituted with 1 or 2 groups
	-	that are independently C_1 - C_4 alkyl, hydroxy, hydroxy
20		C ₁ -C ₄ alkyl, or halogen;
	-	R_8 is hydrogen, C_1 - C_6 alkyl, C_1 - C_6 alkanoyl, phenyl
		C_1-C_4 alkyl and phenyl C_1-C_4 alkanoyl; and
		R ₉ is aminoalkyl, mono C ₁ -C ₆ alkylamino C ₁ -C ₆ alkyl,
		di C ₁ -C ₆ alkylamino C ₁ -C ₆ alkyl, C ₁ -C ₆ alkyl, C ₁ -
25		C_6 alkanoyl, phenyl C_1 - C_4 alkyl, indazolyl, and
		phenyl C ₁ -C ₄ alkanoyl;
		R ₂₀ and R ₂₁ are independently H, C ₁ -C ₆ alkyl, C ₁ -C ₆
		hydroxyalkyl, C ₁ -C ₆ alkoxy C ₁ -C ₆ alkyl, or
		R_{20} , R_{21} , and the nitrogen to which they are attached form

independently alkyl or halogen

a piperazinyl, or morpholinyl ring, each of which is optionally substituted with 1 or 2 groups that are

Embodiment 115. Compounds according to embodiment 114, wherein

R₅ is indolyl (C₁-C₄) alkyl, or pyrazinyl(C₁-C₄)alkyl, wherein each of the above is unsubstituted or substituted with 1, 2, 3, or 4 groups that are independently C₁-C₆ alkyl, halogen, C₁-C₆ alkoxy, C₁-C₆ hydroxyalkyl, benzyloxy, C₁-C₆ thioalkoxy, -CO₂(C₁-C₅ alkyl), CO₂H, CN, -C(O)NR₂₀R₂₁, CF₃, or OCF₃; wherein

 R_{20} and R_{21} are independently H, C_1 - C_6 alkyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 alkoxy C_1 - C_6 alkyl, or

 R_{20} , R_{21} , and the nitrogen to which they are attached form a piperazinyl, or morpholinyl ring, each of which is optionally substituted with 1 or 2 groups that are independently alkyl or halogen.

15

20

25

10

5

Embodiment 116. Compounds according to embodiment 102 or embodiment 103, wherein

 R_5 is isoquinolinyl, isoindolyl, indol-2-onyl, quinolinyl(C_1 - C_6) alkyl, isoquinolinyl(C_1 - C_6) alkyl, isoindolyl(C_1 - C_6) alkyl, indol-2-onyl(C_1 - C_6) alkyl, wherein

each of the above is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently C_1 - C_6 alkyl, halogen, C_1 - C_6 alkoxy, C_1 - C_6 hydroxyalkyl, benzyloxy, C_1 - C_6 thioalkoxy, $-CO_2(C_1$ - C_5 alkyl), CO_2 H, CN, amidinooxime, NR_8R_9 , NR_6R_7 - $(C_1$ - C_6 alkyl)-, $-C(O)NR_6R_7$, amidino, CF_3 , or OCF_3 .

Embodiment 117. Compounds according to embodiment 1 or 2, wherein

30 R_1 is H, halogen, methyl, ethyl, C_2 - C_4 alkenyl, C_2 - C_4 alkynyl, or carboxaldehyde;

 R_2 is benzyloxy, OH, phenyloxy, phenyloxy(C_1 - C_6)alkyl, or phenyl (C_1 - C_4) thioalkoxy, wherein each of the above is

optionally substituted with 1, 2, 3, or 4 groups that are independently halogen, $-(C_1-C_6)$ alkyl-N(R)-CO₂R₃₀, NR₆R₇, (C₁-C₄) haloalkyl, (C₁-C₄) haloalkoxy, (C₁-C₆) alkyl, pyridyl, or NR₆R₇-(C₁-C₆ alkyl)-; and

- 5 R_4 is H, (C_1-C_4) alkyl optionally substituted with one or two groups that are independently CO_2H , $-CO_2$ alkyl, -C(O)NRR, $N(R_{30})C(O)NRR$, $-N(R_{30})C(O)-(C_1-C_6)$ alkoxy, or $-NR_6R_7$, or hydroxy(C_1-C_4)alkyl;
- R₅ is C₃-C₇ cycloalkyl or C₃-C₇ cycloalkylalkyl, each of which

 is optionally substituted with 1 or 2 groups that are
 independently alkyl, alkoxy, halogen, -NR₆R₇, or NR₆R₇-(C₁C₆ alkyl)-, wherein each of the alkyl groups is optionally
 substituted with 1 or 2 groups that are independently OH,
 methoxy, NH₂, or halogen.

15

- Embodiment 118. Compounds according to embodiment 117, wherein
- R_5 is C_3 - C_7 cycloalkyl or C_3 - C_7 cycloalkyl C_1 - C_4 alkyl, each of which is optionally substituted with 1 or 2 groups that are independently C_1 - C_4 alkyl, C_1 - C_4 alkoxy, halogen, NR_6R_7 , or NR_6R_7 - $(C_1$ - C_6 alkyl) wherein each of the alkyl groups is optionally substituted with 1 or 2 groups that are independently OH, methoxy, or NH_2 ;
- R₆ and R₇ are independently at each occurrence H, C₁-C₄ alkyl,

 C₁-C₄ hydroxyalkyl, C₁-C₄ alkoxy, C₁-C₄ alkoxy C₁-C₄ alkyl,

 C₁-C₄ alkanoyl, benzyl, benzyloxy, or phenyl C₁-C₄

 alkanoyl, wherein each is unsubstituted or substituted with 1, 2, or 3 groups that are independently, halogen,

 OH, SH, C₃-C₆ cycloalkyl, C₁-C₄ alkoxy, C₁-C₄ alkyl, CF₃, or
 - R_6 , R_7 , and the nitrogen to which they are attached form a morpholinyl, thiomorpholinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are

independently C_1 - C_4 alkyl, hydroxy, hydroxy C_1 - C_4 alkyl, or halogen.

Embodiment 119. Compounds according to embodiment 5 118, wherein

R₁ is H, halogen, methyl, ethyl;

- R_2 is benzyloxy, phenyloxy, phenyloxy(C_1 - C_6) alkyl, or phenyl (C_1 - C_4) thioalkoxy, wherein each of the above is optionally substituted with 1, 2, 3, or 4 groups that are independently halogen, -(C_1 - C_6) alkyl-N(R)- CO_2R_{30} , amino, mono or dialkylamino, - NR_6R_7 , (C_1 - C_4) haloalkyl, (C_1 - C_4) haloalkoxy, (C_1 - C_6) alkyl, or NR_6R_7 -(C_1 - C_6 alkyl)-; and
- R_4 is H, methyl, (C_1-C_4) alkyl optionally substituted with one or two groups that are independently CO_2H , $-CO_2$ alkyl, -C(O) NRR, $-N(R_{30})$ C(O) NRR, $-N(R_{30})$ $C(O)-(C_1-C_6)$ alkoxy, or $-NR_6R_7$ or hydroxy (C_1-C_2) alkyl.

Embodiment 120. Compounds according to embodiment 119, wherein

20 R_2 is substituted with two halogens and is further optionally substituted with 1 or 2 groups that are independently halogen, $-(C_1-C_6)$ alkyl-N(R)-CO₂R₃₀, amino, mono or dialkylamino, -NR₆R₇, (C₁-C₄) haloalkyl, (C₁-C₄) haloalkoxy, (C₁-C₆) alkyl, or NR₆R₇-(C₁-C₆ alkyl).

25

10

Embodiment 121. Compounds according to embodiment 1 or 2, wherein

R₅ is H, alkyl optionally substituted with 1, 2, or 3 groups independently phenylalkoxycarbonyl, that 30 $-C(0)NR_8R_9$, alkoxycarbonyl, halogen, oralkanoyl, substituted alkoxyalkyl optionally with one trimethylsilyl group, alkoxycarbonyl, amino, hydroxyalkyl, alkenyl optionally substituted

alkoxycarbonyl, alkynyl, -SO₂-alkyl, or alkoxy optionally substituted with one trimethylsilyl group, wherein each of the above is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently alkyl, 5 halogen, alkoxy, phenylalkoxy, thioalkoxy, -SO2alkyl, alkoxycarbonyl, phenylalkoxycarbonyl, CO₂H, CN, OH, amidinooxime, NR_8R_9 , NR_6R_7 -(C_1 - C_6 alkyl)-, -C(O) NR_6R_7 , hydroxyalkyl, carboxaldehyde, amidino, $-NR_6R_7$ haloalkyl, or haloalkoxy; 10 wherein R₈ is hydrogen, alkyl, alkanoyl, phenylalkyl and arylalkanoyl; and wherein R۹ is alkyl, alkanoyl, phenylalkyl, heteroaryl, aminoalkyl, monoalkylaminoalkyl, dialkylaminoalkyl, and arylalkanoyl.

In this embodiment, it is preferred that when R_2 is benzyloxy, R_4 is H, and R_5 is benzyl or methyl, R_1 is not hydrogen; and

no more than two of $R_1,\ R_2,\ R_4,$ and R_5 are simultaneously hydrogen.

20

Embodiment 122. Compounds according to embodiment 1 or 2, wherein

 R_5 is H, alkyl optionally substituted with 1, 2, or 3 groups independently phenylalkoxycarbonyl, 25 halogen, $-C(O)NR_8R_9$, alkoxycarbonyl, or alkanoyl, alkoxyalkyl optionally substituted with trimethylsilyl alkoxycarbonyl, group, amino, hydroxyalkyl, alkenyl optionally substituted with alkoxycarbonyl, alkynyl, -SO₂-alkyl, alkoxy optionally 30 substituted with one trimethylsilyl group, wherein each of the above is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently alkyl, halogen, alkoxy, phenylalkoxy, thioalkoxy, -SO2alkyl,

alkoxycarbonyl, phenylalkoxycarbonyl, CO_2H , CN, OH, amidinooxime, NR_8R_9 , NR_6R_7 - $(C_1$ - C_6 alkyl)-, - $C(O)NR_6R_7$, amidino, hydroxyalkyl, carboxaldehyde, - NR_6R_7 , haloalkyl, or haloalkoxy;

wherein R_8 is hydrogen, alkyl, alkanoyl, phenylalkyl and arylalkanoyl; and

wherein R₉ is alkyl, alkanoyl, phenylalkyl, heteroaryl, aminoalkyl, monoalkylaminoalkyl, dialkylaminoalkyl, and arylalkanoyl.

In this embodiment, it is preferred that when R_2 is benzyloxy, R_4 is H, and R_5 is benzyl or methyl, R_1 is not hydrogen; and

no more than two of $R_{1},\ R_{2},\ R_{4},$ and R_{5} are simultaneously hydrogen.

15

5

Embodiment 123. Compounds according to any one of embodiments 117, 118, 119, 120, 121, or 122, wherein

- R_1 is H, halogen, methyl, ethyl, C_2 - C_4 alkenyl, C_2 - C_4 alkynyl, or carboxaldehyde;
- 20 R₂ is benzyloxy, OH, phenyloxy, phenyloxy(C₁-C₆)alkyl, or phenyl (C₁-C₄) thioalkoxy, wherein each of the above is optionally substituted with 1, 2, 3, or 4 groups that are independently halogen, -(C₁-C₆)alkyl-N(R)-CO₂R₃₀, NR₆R₇, (C₁-C₄) haloalkyl, (C₁-C₄) haloalkoxy, (C₁-C₆) alkyl, pyridyl, or NR₆R₇-(C₁-C₆ alkyl)-; and
 - R_4 is H, (C_1-C_4) alkyl optionally substituted with one or two groups that are independently CO_2H , $-CO_2$ alkyl, -C(O)NRR, $-N(R_{30})C(O)$ NRR, $-N(R_{30})C(O)-(C_1-C_6)$ alkoxy, or $-NR_6R_7$, or hydroxy(C_1-C_4)alkyl.

30

Embodiment 123A. Compounds according to embodiment 122, wherein

5

10

20

R₅ is H, alkyl optionally substituted with 1, 2, or 3 groups independently phenylalkoxycarbonyl, that $-NR_8R_9$, $-C(0)NR_8R_9$, alkoxycarbonyl, halogen, or alkanoyl, optionally substituted with alkoxyalkyl trimethylsilyl group, alkoxycarbonyl, amino, alkenyl optionally substituted hydroxyalkyl, with alkoxycarbonyl, alkynyl, -SO₂-alkyl, alkoxy optionally substituted with one trimethylsilyl group, wherein

wherein R₈ is hydrogen, C₁-C₄ alkyl, C₁-C₄ alkanoyl, phenyl C₁-C₄ alkyl and phenyl C₁-C₄ alkanoyl; wherein R₉ is C₁-C₄ alkyl, C₁-C₄ alkanoyl, phenyl C₁-C₄ alkyl, pyridyl, aminoalkyl, monoalkylaminoalkyl, dialkylaminoalkyl, and phenyl C₁-C₄ alkanoyl.

- 15 Embodiment 124. Compounds according to embodiment 123A, wherein
 - R_5 is C_1 - C_6 alkyl optionally substituted with 1, 2, or 3 groups that are independently phenyl C_1 - C_4 alkoxycarbonyl, NH_2 , mono C_1 - C_4 alkylamino, di C_1 - C_4 alkylamino, halogen, $-C(0)NH_2$, $-C(0)NH(C_1$ - C_6 alkyl) wherein the alkyl is optionally substituted with OH, NH_2 , or methoxy, -C(0)N (C_1 - C_6 alkyl) (C_1 - C_6 alkyl) wherein each alkyl is optionally substituted with OH, NH_2 , or methoxy, C_1 - C_4 alkoxycarbonyl, and C_1 - C_4 alkanoyl, or
- 25 R_5 is C_1 - C_4 alkoxy C_1 - C_4 alkyl, C_1 - C_4 alkoxycarbonyl, amino, C_1 - C_4 hydroxyalkyl, C_2 - C_4 alkenyl optionally substituted with C_1 - C_4 alkoxycarbonyl, C_2 - C_4 alkynyl, -SO₂- C_1 - C_4 alkyl, or C_1 - C_4 alkoxy.
- 30 Embodiment 125. A compound of the formula

10

15

20

25

30

$$R_4$$
 R_4
 R_5

or a pharmaceutically acceptable salt thereof, wherein

 R_1 is halogen, NO_2 , alkyl, carboxaldehyde, hydroxyalkyl, arylalkoxy, arylalkyl, CN, aryl, alkanoyl, alkoxy, alkoxyalkyl, haloalkyl, or arylalkanoyl,

wherein the aryl portion of arylalkoxy, arylalkyl, and arylalkanoyl is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, (C₁-C₄)alkyl, (C₁-C₄) alkoxy, nitro, CN, haloalkyl, haloalkoxy or CO₂H;

wherein the alkyl portion of the alkyl, hydroxyalkyl, arylalkoxy, arylalkyl, alkanoyl, alkoxy, alkoxyalkyl and arylalkanoyl groups is unsubstituted or substituted with 1, 2, or 3 groups that are independently halogen, C₁-C₄ alkoxy, C₁-C₄ alkoxycarbonyl, or spirocyclopropyl;

 R_2 is aryl, heteroaryl, arylalkenyl, arylalkoxy, aryloxyalkyl, arylalkyl, OH, alkynyl, aryloxy, aryloxyalkyl, arylthioalkoxy, alkoxy, $-OC(O)NH(CH_2)_naryl$, $-OC(O)N(alkyl)(CH_2)_naryl$, $-OSO_2(C_1-C_6)alkyl$, $-OSO_2aryl$, alkyl, alkoxyalkoxy, NR_8R_9 , or CO_2H , wherein n is 0, 1, 2, 3, 4, 5 or 6;

each of the above is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, $-(C_1-C_6)$ alkyl-N(R)-CO₂R₃₀, alkoxy, alkoxycarbonyl, CN, NR₆R₇, haloalkyl, haloalkoxy, alkyl, heteroaryl, heteroarylalkyl, NR₆R₇-(C₁-C₆ alkyl)-, phenyl, -SO₂-phenyl wherein the phenyl groups are optionally substituted with 1, 2, or 3 groups that are independently halogen or NO₂; or -OC(0)NR₆R₇, wherein

10

15

R₆ and R₇ are independently at each occurrence H, alkyl, alkoxy, alkoxyalkyl, alkoxycarbonyl, -SO₂-alkyl, OH, hydroxyalkyl, -(C₁-C₄)alkyl-CO₂-alkyl, heteroarylalkyl, alkanoyl, arylalkyl, arylalkoxy, or arylalkanoyl, wherein each of the above is unsubstituted or substituted with 1, 2, or 3 groups that are independently, halogen, alkoxy, heterocycloalkyl, OH, SH, C₃-C₆ cycloalkyl, NH₂, NH(alkyl), N(alkyl)(alkyl), -O-alkanoyl, alkyl, haloalkyl, or haloalkoxy; or

1

R₆, R₇, and the nitrogen to which they are attached form a morpholinyl, thiomorpholinyl, piperidinyl, pyrrolidinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C₁-C₄ alkyl, C₁-C₄ alkoxy, hydroxy, hydroxy C₁-C₄ alkyl, or halogen;

R at each occurrence is independently H or $C_1\text{-}C_6$ alkyl;

20 R_{30} is C_1 - C_6 alkyl optionally substituted with 1 or 2 groups that are independently OH, SH, halogen, amino, monoalkylamino, dialkylamino or C_3 - C_6 cycloalkyl;

 R_4 is H, alkyl optionally substituted with one or two groups that are independently CO_2H , $-CO_2$ alkyl, -C(O)NRR, $-N(R_{30})C(O)NRR$, $-N(R_{30})C(O)-(C_1-C_6)$ alkoxy, or $-NR_6R_7$, arylalkoxy, arylalkyl, hydroxyalkyl, haloalkyl, alkoxy, carboxaldehyde, CO_2H , alkoxyalkyl, or alkoxyalkoxy, wherein

the aryl portion of arylalkoxy, arylalkyl is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, hydroxy, alkoxy, alkyl, nitro, haloalkyl, or haloalkoxy; and

R₅ is H, arylalkyl, alkyl, aryl, alkoxy, heterocycloalkylalkyl, heteroarylalkyl, heterocycloalkyl, cycloalkyl, cycloalkylalkyl, -alkyl-S-aryl, -alkyl-SO₂-aryl, - (C_1-C_4) alkyl-C(0)-heterocycloalkyl, -SO₂-aryl, or heteroaryl, 5 wherein each of the above is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently alkyl, halogen, alkoxy, aryl, arylalkoxy, thioalkoxy, alkoxycarbonyl, arylalkoxycarbonyl, OH, CO₂H, 10 amidinooxime, NR_8R_9 , NR_6R_7 -(C_1 - C_6 alkyl)-, -C(0) NR_6R_7 , $-(C_1-C_4 \text{ alkyl})-C(0)NR_6R_7$ amidino, hydroxyalkyl, - SO_2 alkyl, $-SO_2H$, $-SO_2NR_6R_7$, $-NR_6R_7$, alkanoyl wherein the alkyl portion is optionally substituted with OH, halogen or alkoxy, haloalkyl, $-(C_1-C_4)$ alkyl)- $NR_{15}C(O)NR_{16}R_{17}$, $-(C_1-C_4 \text{ alkyl})-NR_{15}C(O)R_{18}$, $-O-CH_2-O$, -15 O-CH₂CH₂-O-, or haloalkoxy; wherein R₈ at each occurrence is independently hydrogen, alkyl, alkanoyl, arylalkyl and arylalkanoyl wherein each of the above is optionally substituted with 1, 2, 3, 4, or 5 groups that 20 independently alkyl, alkoxycarbonyl, halogen, or haloalkyl; and each occurrence is independently R۹ alkanoyl, arylalkyl cycloalkyl, alkenyl, heteroaryl, cycloalkylalkyl, arylalkanoyl, -SO₂-25 phenyl, and aryl wherein each of the above is optionally substituted with 1, 2, 3, 4, or 5 groups that are independently alkyl, alkoxy, alkoxycarbonyl, halogen, or haloalkyl; 30 R_{15} is H or C_1 - C_6 alkyl; R_{16} and R_{17} are independently H or C_1 - C_6 alkyl; or R_{16} , R_{17} , and the nitrogen to which they are attached form a morpholinyl ring; and

 R_{18} is C_1 - C_6 alkyl optionally substituted with -O-(C_2 - C_6 alkanoyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkoxy C_1 - C_6 alkyl; amino C_1 - C_6 alkyl, mono or dialkylamino C_1 - C_6 alkyl.

In this embodiment, it is preferred that: $R_6 \text{ and } R_7 \text{ are not simultaneously OH;}$ $R_6 \text{ and } R_7 \text{ are not simultaneously } -SO_2(C_1-C_6 \text{ alkyl});$ when R_2 is OH, R_4 is methyl and R_5 is phenyl, R_1 is not acetyl; and

10 R_4 and R_5 are not simultaneously hydrogen.

Embodiment 126. Compounds according to embodiment 125 wherein

R₁ is halogen, C₁-C₆ alkyl, phenyl, carboxaldehyde, C₁-C₆

hydroxyalkyl, phenyl C₁-C₆ alkoxy, phenyl C₁-C₆ alkyl, CN,

C₁-C₆ alkanoyl, C₁-C₆ alkoxy, C₁-C₆ alkoxy C₁-C₆ alkyl, C₁-C₆

haloalkyl, or phenyl C₁-C₆ alkanoyl,

wherein the above phenyl groups are unsubstituted or substituted with 1, 2, or 3 groups that are independently halogen, (C_1-C_4) alkyl, (C_1-C_4) alkoxy, nitro, CN, C_1-C_4 haloalkyl, C_1-C_4 haloalkoxy or CO_2H ;

wherein the above alkyl groups are unsubstituted or substituted with 1, 2, or 3 groups that are independently halogen, methoxy, or ethoxy,

25 phenylalkoxy, OH, phenyloxy, phenyloxy(C₁-C₆)alkyl, R_2 phenylthio (C_1-C_4) alkoxy, alkoxy, alkenyl, phenethyl, -OC(O)NH(CH₂)_nphenyl, <math>-OC(O)N(alkyl)(CH₂)_nphenyl,alkoxyalkoxy, NR₈R₉, pyridyl, pyrimidyl, pyridazyl, pyrazolyl, imidazolyl, pyrrolyl, tetrahydroquinolinyl, amino, tetrahydroisoquinolinyl, tetrazolyl, 30 pyrazinyl, benzimidazolyl, triazinyl, tetrahydrofuryl, piperidinyl, hexahydropyrimidinyl, thiazolyl, thienyl, or CO₂H, wherein n is 0, 1, 2, or 3;

10

15

- each of the above is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, $-(C_1-C_6)\, \text{alkyl-N(R)} \text{CO}_2\text{R}_{30}, \quad \text{haloalkyl}, \quad \text{haloalkoxy}, \\ \text{alkyl}, \quad \text{thienyl}, \quad \text{pyridyl}, \quad \text{or} \quad \text{phenyl} \quad \text{optionally} \\ \text{substituted with 1, 2, or 3 halogens;}$
- R₆ and R₇ are independently at each occurrence H, alkyl, alkoxy, alkoxyalkyl, hydroxyalkyl, alkoxycarbonyl, (C₁-C₄)alkyl-CO₂-alkyl, alkanoyl, phenylalkyl, phenylalkoxy, or phenylalkanoyl, wherein each of the above is unsubstituted or substituted with 1, 2, or 3 groups that are independently, halogen, OH, SH, C₃-C₆ cycloalkyl, alkoxy, NH₂, NH(C₁-C₆ alkyl), N(C₁-C₆ alkyl), alkyl, CF₃ or OCF₃; or
- R₆, R₇, and the nitrogen to which they are attached form a morpholinyl, thiomorpholinyl, piperidinyl, pyrrolidinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C₁-C₄ alkyl, hydroxy, hydroxy C₁-C₄ alkyl, or halogen;
- 20 R_4 is H, alkyl optionally substituted with one or two groups that are independently CO_2H , $-CO_2$ alkyl, -C(O)NRR, $-N(R_{30})C(O)NRR$, $-N(R_{30})C(O)-(C_1-C_6)$ alkoxy, or $-NR_6R_7$, phenylalkoxy, phenylalkyl, hydroxyalkyl, carboxaldehyde, haloalkyl, alkoxy, alkoxyalkyl, or alkoxyalkoxy, wherein the above phenyl groups are unsubstituted or substituted with 1, 2, or 3 groups that are independently halogen, hydroxy, alkoxy, alkyl, nitro, haloalkyl, or haloalkoxy; and
- R₅ is benzyl, phenethyl, (C₁-C₆)alkyl, phenyl, naphthyl, 30 alkoxy, piperidinyl, pyrrolidinyl, imidazolidinyl, piperazinyl, isoquinolinyl, tetrahydroisoquinolinyl, indolyl, 1H-indazolyl, pyridyl, pyrimidyl, pyridazyl, pyrazinyl, piperidinyl(C₁-C₆)alkyl, pyrrolidinyl(C₁-

5

10

 C_6) alkyl, imidazolidinyl (C_1 - C_6) alkyl, piperazinyl (C_1 - C_6) alkyl, pyridyl (C_1 - C_6) alkyl, pyridazyl (C_1 - C_6) alkyl, pyrazinyl (C_1 - C_6) alkyl, isoquinolinyl (C_1 - C_6) alkyl, tetrahydroisoquinolinyl (C_1 - C_6) alkyl, indolyl (C_1 - C_6) alkyl, or 1H-indazolyl (C_1 - C_6) alkyl, and wherein

ī

each of the above is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently alkyl, halogen, alkoxy, hydroxyalkyl, phenylalkoxy, thioalkoxy, alkoxycarbonyl, phenylalkoxycarbonyl, OH, CO₂H, CN, amidinooxime, NR₈R₉, NR₆R₇-(C₁-C₆ alkyl)-, -C(O)NR₆R₇, amidino, piperazinyl, morpholinyl, -SO₂(C₁-C₆) alkyl, -SO₂NH₂, -SO₂NH(C₁-C₆) alkyl, -SO₂N(C₁-C₆) alkyl (C₁-C₆) alkyl, haloalkyl, or haloalkoxy.

In this embodiment, it is preferred that when R_2 is OH, R_4 is methyl and R_5 is phenyl, R_1 is not acetyl; and R_4 and R_5 are not simultaneously hydrogen.

Embodiment 127. Compounds according to embodiment 126
20 wherein

- R_1 is halogen, alkyl, carboxaldehyde, hydroxyalkyl, phenylalkoxy, phenyl, benzyl, phenethyl, phenpropyl, phenbutyl, CN, (C_2-C_6) alkanoyl, haloalkyl, or phenylCO-, phenylCH₂CO-, phenylCH₂CO-,
- wherein the above phenyl groups are unsubstituted or substituted with 1, 2, or 3 groups that are independently halogen, (C_1-C_4) alkyl, (C_1-C_4) alkoxy, nitro, CN, haloalkyl, haloalkoxy or CO_2H ;
- wherein the above alkyl groups are unsubstituted or substituted with 1, 2, or 3 groups that are independently halogen, methoxy, or ethoxy,
 - R_2 is benzyloxy, phenethyloxy, phenpropyloxy, OH, phenyloxy, phenyloxy(C_1 - C_6)alkyl, phenylthio(C_1 - C_4)alkoxy, NR_8R_9 , (C_1 -

5

- C₆)alkyl, alkynyl, phenethyl, -OC(O)N(CH₃)CH₂phenyl, alkoxyalkoxy, pyridyl, pyrimidyl, pyridazyl, pyrazolyl, imidazolyl, pyrrolyl, pyrazinyl, piperidinyl, hexahydropyrimidinyl, benzimidazolyl, or thienyl, wherein each of the above is unsubstituted or substituted with 1, 2, or 3 groups that are independently halogen, -(C₁-C₆)alkyl-N(R)-CO₂R₃₀, CF₃, OCF₃, (C₁-C₄)alkyl, thienyl, pyridyl, or phenyl optionally substituted with 1, 2, or 3 halogens;
- R_6 and R_7 are independently at each occurrence H, (C_1 -10 C_6) alkyl, (C_1-C_6) alkoxy, (C_1-C_6) alkoxy (C_1-C_6) alkyl, (C_1-C_6) alkoxycarbonyl, hydroxy (C_1-C_6) alkyl, C_4) alkyl- CO_2 -alkyl, (C_1-C_6) alkanoyl, phenyl (C1- C_6) alkyl, phenyl (C_1-C_6) alkoxy, or phenyl (C₁-15 C_6) alkanoyl, wherein each of the above unsubstituted or substituted with 1, 2, or 3 groups that are independently, halogen, (C₁-C₆) alkoxy, NH₂, OH, SH, C_3-C_6 cycloalkyl, (C_1-C_6) alkyl, CF_3 or OCF_3 ; or
- 20 R₆, R₇, and the nitrogen to which they are attached form a morpholinyl, piperidinyl, pyrrolidinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C₁-C₄ alkyl, hydroxy, hydroxy C₁-C₄ alkyl, or halogen;
- 25 R_4 is H, alkyl optionally substituted with one or two groups that are independently CO_2H , $-CO_2$ alkyl, -C(O)NRR, $-N(R_{30})C(O)NRR$, $-N(R_{30})C(O)-(C_1-C_6)$ alkoxy, or $-NR_6R_7$, benzyloxy, phenethyloxy, phenpropyloxy, benzyl, phenethyl, phenpropyl, hydroxyalkyl, halo (C_1-C_4) alkyl, carboxaldehyde, alkoxy, alkoxyalkyl, or alkoxyalkoxy, wherein
 - the above phenyl groups are unsubstituted or substituted with 1, 2, or 3 groups that are independently

halogen, hydroxy, alkoxy, alkyl, nitro, CF_3 or OCF_3 ; and

 R_5 is benzyl, phenethyl, phenpropyl, phenbutyl, (C_1-C_6) alkyl, phenyl, piperidinyl, pyrrolidinyl, imidazolidinyl, piperidinyl(C₁-C₆)alkyl, pyrrolidinyl (C₁-C₆) alkyl, 5 $imidazolidinyl(C_1-C_6)alkyl, pyridyl, pyrimidyl, pyridazyl,$ $pyridyl(C_1-C_6)alkyl,$ pyrimidyl (C_1-C_6) alkyl, pyrazinyl, pyridazyl (C_1-C_6) alkyl, or pyrazinyl (C_1-C_6) alkyl wherein each of the above is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently alkyl, 10 haloalkyl, NR₈R₉, $NR_6R_7 - (C_1 - C_6)$ halogen, alkyl)-, carboxaldehyde, morpholinyl, SO₂NH₂, SO₂NH(alkyl), SO₂N(alkyl)(alkyl), alkoxy, hydroxyalkyl, benzyloxy, thioalkoxy, OH, CO_2H , CN, -CO₂ (C₁-C₅ alkyl), 15 phenylalkoxycarbonyl, amidinooxime, amidino, $-C(O)NR_6R_7$, CF_3 , CF_2CF_3 , $C1CH_2$, or OCF_3 .

In this embodiment, it is preferred that when R_2 is OH, R_4 is methyl and R_5 is phenyl, R_1 is not acetyl.

- 20 Embodiment 128. Compounds according to embodiment 127 wherein
 - R_1 is halogen, alkyl, carboxaldehyde, hydroxy(C_1 - C_4)alkyl, phenylalkoxy, benzyl, phenethyl, -C(O)CH₃, phenylCO-, or phenylCH₂CO-,
- wherein the above phenyl groups are unsubstituted or substituted with 1, 2, or 3 groups that are independently halogen, (C_1-C_4) alkyl, (C_1-C_4) alkoxy, nitro, CN, CF₃, or OCF₃;
- wherein the above alkyl groups are unsubstituted or substituted with 1, 2, or 3 groups that are independently halogen, methoxy, or ethoxy;

5

10

15

20

25

30

 R_2 is benzyloxy, phenethyloxy, phenpropyloxy, OH, phenyloxy, phenyloxy(C_1 - C_6)alkyl, phenethyl, NR_8R_9 , -S-benzyl, or (C_1 - C_6)alkyl, wherein

each of the above is unsubstituted or substituted with 1, 2, or 3 groups that are independently halogen, -(C_1 - C_6)alkyl-N(R)-CO₂R₃₀, CF₃, OCF₃, alkyl, thienyl, or pyridyl;

 R_6 and R_7 are independently at each occurrence H, (C_1 - (C_1-C_6) alkoxy, (C_1-C_6) alkoxy (C_1-C_6) alkyl, C_6) alkyl, (C_1-C_6) alkoxycarbonyl, hydroxy (C_1-C_6) alkyl, $-(C_1-C_6)$ C₄)alkyl-CO₂-alkyl, (C_1-C_6) alkanoyl, phenyl (C₁phenyl (C_1-C_6) alkoxy, C_6) alkyl, or phenyl (C_1 wherein each of the above is C_6) alkanoyl, unsubstituted or substituted with 1, 2, or 3 groups that are independently, halogen, (C₁-C₆) alkoxy, NH₂, OH, SH, C_3 - C_6 cycloalkyl, $(C_1$ - $C_6)$ alkyl, CF_3 or OCF_3 ; or

 R_6 , R_7 , and the nitrogen to which they are attached form a morpholinyl, piperidinyl, pyrrolidinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C_1 - C_4 alkyl, hydroxy, hydroxy C_1 - C_4 alkyl, or halogen;

 R_4 is H, alkyl optionally substituted with one or two groups that are independently CO_2H , $-CO_2$ alkyl, -C(O)NRR, $-N(R_{30})C(O)NRR$, $-N(R_{30})C(O)-(C_1-C_6)$ alkoxy, or $-NR_6R_7$, benzyloxy, phenethyloxy, phenpropyloxy, benzyl, or hydroxyalkyl, wherein

the above phenyl groups are unsubstituted or substituted with 1, 2, or 3 groups that are independently halogen, hydroxy, alkoxy, alkyl, nitro, CF₃ or OCF₃; and

 R_5 is benzyl, phenethyl, phenpropyl, phenbutyl, (C_1-C_6) alkyl, phenyl, pyridyl, pyrazinyl, pyrimidinyl, pyrazinyl (C_1-C_6)

25

 C_6) alkyl, pyrimidinyl (C_1 - C_6) alkyl, or pyridyl (C_1 - C_4) alkyl, wherein

each of the above is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently alkyl, halogen, haloalkyl, morpholinyl, -SO₂ (C₁-C₆) alkyl, -SO₂NH₂, -SO₂NH (C₁-C₆), -SO₂N(C₁-C₆) (C₁-C₆), (C₁-C₄) alkoxy, phenyl (C₁-C₄) alkoxy, thio (C₁-C₄) alkoxy, (C₁-C₄) alkoxycarbonyl, OH, CO₂H, CN, amidinooxime, amidino, NR₈R₉, NR₆R₇-(C₁-C₆ alkyl)-, hydroxyalkyl, CONR₆R₇, CF₃, or OCF₃.

Embodiment 129. Compounds according to embodiment 128 wherein

R₁ is halogen, alkyl, carboxaldehyde, or hydroxyalkyl;

- 15 R_2 is benzyloxy, phenethyloxy, phenpropyloxy, OH, phenyloxy, phenyloxy(C_1 - C_6)alkyl, phenethyl, phenylthioalkoxy, or (C_1 - C_6)alkyl, wherein
 - each of the above is unsubstituted or substituted with 1, 2, or 3 groups that are independently halogen, $-(C_1-C_6)$ alkyl-N(R)-CO₂R₃₀, CF₃, OCF₃, alkyl, thienyl, or pyridyl;
 - R_4 is H, (C_1-C_4) alkyl optionally substituted with one or two groups that are independently CO_2H , $-CO_2$ alkyl, -C(O) NRR, $-N(R_{30})C(O)$ NRR, $-N(R_{30})C(O)-(C_1-C_6)$ alkoxy, or $-NR_6R_7$, benzyloxy, or phenethyloxy, wherein
 - the above phenyl groups are unsubstituted or substituted with 1, 2, or 3 groups that are independently halogen, hydroxy, (C_1-C_4) alkoxy, (C_1-C_4) alkyl, nitro, CF_3 or OCF_3 ; and
- 30 R_5 is benzyl, phenethyl, (C_1-C_6) alkyl, phenyl, indazolyl, or pyridyl, wherein each of the above is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently (C_1-C_4) alkyl, halogen, OH, CO_2H , CN,

 (C_1-C_4) alkoxy, -C(O) pyrrolidine, $-SO_2$ (C_1-C_6) alkyl, benzyloxy, $-CO_2(C_1-C_5)$ alkyl), amidino, thio (C_1-C_4) alkoxy, amidinooxime, CF_3 , NR_8R_9 , $NR_6R_7-(C_1-C_6)$ alkyl)-, $CONR_6R_7$, or OCF_3 .

5

25

Embodiment 130. Compounds according to embodiment 129 wherein

 R_1 is chloro, bromo, iodo, methyl, $C_2\text{-}C_3$ alkenyl, $C_2\text{-}C_3$ alkynyl; and

- 10 R_5 is benzyl, phenethyl, phenpropyl, phenyl, or pyridyl, each of which is unsubstituted or substituted with 1, 2, or 3 groups that are independently alkyl, OH, halogen, alkoxy, NH_2 , $NH(C_1-C_6)$ alkyl, $N(C_1-C_6)$ alkyl(C_1-C_6) alkyl, NR_8R_9 , $NR_6R_7-(C_1-C_6)$ alkyl)-, $CONR_6R_7$, and amidinooxime; wherein
- R₆ and R₇ are independently H, C₁-C₄ alkyl, C₁-C₆ alkanoyl, wherein the alkyl and alkanoyl groups are optionally substituted with 1, 2, or 3 groups that are independently OH, halogen, or C₃-C₇ cyclopropyl.
- 20 Embodiment 131. Compounds according to embodiment 130 wherein
 - R_2 is benzyloxy, phenethyl, phenyloxy(C_1 - C_6)alkyl, or phenethyloxy, each of which is unsubstituted or substituted with 1, 2, or 3 groups that are independently halogen, $-(C_1-C_6)$ alkyl-N(R)- CO_2R_{30} , CF_3 , OCF_3 , or (C_1-C_4) alkyl.
 - Embodiment 132. Compounds according to embodiment 125, wherein
- 30 R_5 is benzyl, phenethyl, thienyl(C_1 - C_6 alkyl), piperidinyl(C_1 - C_6)alkyl, pyrrolidinyl(C_1 - C_6)alkyl, imidazolidinyl(C_1 - C_6)alkyl, piperazinyl(C_1 - C_6)alkyl, pyridyl(C_1 - C_6)alkyl, pyrimidyl(C_1 - C_6)alkyl, pyridazyl(C_1 - C_6)alkyl, pyrazinyl(C_1 -

 C_6) alkyl, isoquinolinyl (C1-C6) alkyl, tetrahydroisoguinolinyl (C_1-C_6) alkyl, indolyl (C_1-C_6) alkyl, or 1H-indazolyl(C₁-C₆)alkyl, wherein each of the above is unsubstituted or substituted with 1, 5 2, 3, 4, or 5 groups that are independently $(C_1$ - C_6) alkyl, halogen, (C_1-C_6) alkoxy, (C_1-C_6) hydroxyalkyl, phenyl (C_1-C_6) alkoxy, (C_1-C_6) thioalkoxy, (C1- C_6) alkoxycarbonyl, phenyl (C_1 - C_6) alkoxycarbonyl, OH, CO_2H , CN, amidinooxime, NR_8R_9 , NR_6R_7 -(C_1 - C_6 alkyl)-, -C(0) NR₆R₇, amidino, piperazinyl, morpholinyl, -SO₂ 10 (C_1-C_6) alkyl, $-SO_2NH_2$, $-SO_2NH(C_1-C_6)$ alkyl, $-SO_2N(C_1-C_6)$ (C_1-C_6) alkyl, (C_1-C_4) haloalkyl, C_6) alkyl $alkyl) - NR_{15}C(O)NR_{16}R_{17}$, $-(C_1-C_4 alkyl) - NR_{15}C(O)R_{18}$, -O- CH_2-O , $-O-CH_2CH_2-O-$, or (C_1-C_4) haloalkoxy; wherein 15 R_6 and R_7 are independently at each occurrence H, (C_1-C_6) alkyl, (C_1-C_6) alkoxy, (C_1-C_6) alkoxy (C_1-C_6) C_6) alkyl, (C_1-C_6) alkoxycarbonyl, C_6) hydroxyalkyl, $-(C_1-C_4)$ alkyl $-CO_2-(C_1-C_6)$ alkyl, (C_1-C_6) alkanoyl, phenyl (C_1-C_6) alkyl, phenyl (C_1-C_6) 20 C_6) alkoxy, or phenyl (C_1-C_6) alkanoyl, wherein each of above is unsubstituted the substituted with 1, 2, or 3 groups that are independently, halogen, (C_1-C_4) alkoxy, NH_2 , OH, SH, C_3-C_6 cycloalkyl, NH(C_1-C_6 alkyl), N(C_1-C_6 alkyl) $(C_1-C_6 \text{ alkyl})$, (C_1-C_4) alkyl, CF_3 or OCF_3 ; 25 R_6 , R_7 , and the nitrogen to which they are attached form morpholinyl, thiomorpholinyl, a piperidinyl, pyrrolidinyl, or piperazinyl ring 30 which is optionally substituted with 1 or 2 groups that are independently C_1-C_4 alkyl, hydroxy, hydroxy C₁-C₄ alkyl, or halogen; and

 R_{18} is C_1 - C_6 alkyl optionally substituted with -O-(C_2 - C_6 alkanoyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkoxy C_1 - C_6 alkyl; amino C_1 - C_6 alkyl, mono or dialkylamino C_1 - C_6 alkyl.

In this embodiment, it is preferred that R_6 and R_7 are not simultaneously OH; and

 R_6 and R_7 are not simultaneously $-SO_2\left(C_1-C_6\text{ alkyl}\right)$.

Embodiment 133. Compounds according to embodiment 10 132, wherein

- R_1 is halogen, methyl, ethyl, C_2-C_4 alkenyl, C_2-C_4 alkynyl, or carboxaldehyde;
- R₂ is benzyloxy, OH, phenyloxy, phenyloxy(C₁-C₆)alkyl, or phenyl (C₁-C₄) thioalkoxy, wherein each of the above is optionally substituted with 1, 2, 3, or 4 groups that are independently halogen, -(C₁-C₆)alkyl-N(R)-CO₂R₃₀, NR₆R₇, (C₁-C₄) haloalkyl, (C₁-C₄) haloalkoxy, (C₁-C₆) alkyl, or pyridyl; and
- R_4 is H, (C_1-C_4) alkyl optionally substituted with one or two groups that are independently CO_2H , $-CO_2$ alkyl, -C(O)NRR, $-N(R_{30})C(O)NRR$, $-N(R_{30})C(O)-(C_1-C_6)$ alkoxy, or $-NR_6R_7$, or hydroxy (C_1-C_4) alkyl.

Embodiment 134. Compounds according to embodiment 25 133, wherein

R₅ is benzyl, or phenethyl, wherein each is unsubstituted or
 substituted with 1, 2, 3, 4, or 5 groups that are
 independently (C₁-C₆)alkyl, halogen, (C₁-C₆)alkoxy, (C₁ C₆)hydroxyalkyl, phenyl(C₁-C₆)alkoxy, (C₁-C₆)thioalkoxy,

(C₁-C₆)alkoxycarbonyl, phenyl(C₁-C₆)alkoxycarbonyl, OH,
 CO₂H, CN, amidinooxime, NR₈R₉, NR₆R₇-(C₁-C₆ alkyl)-, C(O)NR₆R₇, -(C₁-C₄ alkyl)-C(O)NR₆R₇amidino, piperazinyl,
 morpholinyl, -SO₂ (C₁-C₆) alkyl, -SO₂NH₂, -SO₂NH(C₁-

10

 C_6) alkyl, $-SO_2N(C_1-C_6)$ alkyl (C_1-C_6) alkyl, (C_1-C_4) haloalkyl, $-(C_1-C_4)$ alkyl) $-NR_{15}C(O)R_{18}$, $-O-CH_2-O$, $-O-CH_2CH_2-O-$, or (C_1-C_4) haloalkoxy; wherein

- R_6 and R_7 are independently at each occurrence H, (C_1 - C_6) alkyl, (C_1-C_6) alkoxy, (C_1-C_6) alkoxy (C_1-C_6) alkyl, (C_1-C_6) alkoxycarbonyl, (C_1-C_6) hydroxyalkyl, C_4) alkyl- CO_2 - $(C_1$ - C_6) alkyl, $(C_1$ - C_6) alkanoyl, phenyl $(C_1$ - C_6) alkyl, phenyl (C_1-C_6) alkoxy, or phenyl (C₁- C_6) alkanoyl, wherein each of the above unsubstituted or substituted with 1, 2, or 3 groups that are independently, halogen, (C_1-C_4) alkoxy, NH_2 , OH, SH, C_3 - C_6 cycloalkyl, NH(C_1 - C_6 alkyl), N(C_1 - C_6 alkyl) $(C_1-C_6 \text{ alkyl})$, $(C_1-C_4) \text{ alkyl}$, $CF_3 \text{ or } OCF_3$; or
- R₆, R₇, and the nitrogen to which they are attached form a morpholinyl, thiomorpholinyl, piperidinyl, pyrrolidinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C₁-C₄ alkyl, hydroxy, hydroxy C₁-C₄ alkyl, or halogen; and
- 20 R_{18} is C_1 - C_6 alkyl optionally substituted with -O-(C_2 - C_6 alkanoyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkyl, amino C_1 - C_6 alkyl, or mono or dialkylamino C_1 - C_6 alkyl.

In this embodiment, it is preferred that R_6 and R_7 are not simultaneously OH; and

 R_6 and R_7 are not simultaneously $-SO_2(C_1-C_6 \text{ alkyl})$.

Embodiment 135. Compounds according to embodiment 134, wherein

30 R_5 is benzyl or phenethyl, wherein each is optionally substituted with 1, 2, 3, 4, or 5 groups that are independently C_1 - C_6 alkyl, $-C(0)NR_6R_7$, $-(C_1-C_4$ alkyl)- $-C(0)NR_6R_7$, NR_8R_9 , halogen, C_1 - C_6 alkoxy, CO_2H , $-(C_1-C_4)$

5

10

15 .

20

25

alkyl)- CO_2H , C_1 - C_6 thioalkoxy, amidinooxime, C_1 - C_6 alkoxycarbonyl, - $(C_1$ - C_4 alkyl)- C_1 - C_6 alkoxycarbonyl, C_1 - C_6 hydroxyalkyl, - $(C_1$ - C_4 alkyl)-CN, CN, phenyl C_1 - C_6 alkoxy, OH, C_1 - C_4 haloalkyl, C_1 - C_4 haloalkoxy, NR_6R_7 - $(C_1$ - C_6 alkyl)-, - $(C_1$ - C_4 alkyl)- $NR_{15}C(O)R_{18}$, amidinooxime, - $SO_2(C_1$ - C_6 alkyl), -O- CH_2 -O-, -O- CH_2 CH₂-O-, phenyl C_1 - C_4 alkoxy, or phenyl; wherein

R₆ and R₇ at each occurrence are independently H, OH, C₁-C₆ alkyl, amino C₁-C₄ alkyl, NH(C₁-C₆ alkyl)alkyl, N(C₁-C₆ alkyl)(C₁-C₆ alkyl) C₁-C₆ alkyl, C₁-C₆ hydroxyalkyl, C₁-C₆ alkoxy C₁-C₆ alkyl, -SO₂(C₁-C₆ alkyl) each of which is optionally substituted with 1, 2, or 3 groups that are independently halogen, OH, SH, C₃-C₆ cycloalkyl, C₁-C₄ alkoxy, C₁-C₄ alkyl, OH, CF₃, or OCF₃;

or

 R_6 , R_7 , and the nitrogen to which they are attached form a pyrrolidinyl, piperidinyl, piperazinyl, morpholinyl, thiomorpholinyl, ring optionally substituted 1 with or2 groups that independently alkyl, hydroxy, hydroxy C1-C4 alkyl, or halogen,

 R_{18} is C_1 - C_6 alkyl optionally substituted with -O-(C_2 - C_6 alkanoyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkyl; amino C_1 - C_6 alkyl, mono or dialkylamino C_1 - C_6 alkyl.

In this embodiment, it is preferred that R_6 and R_7 are not simultaneously OH; and

 R_6 and R_7 are not simultaneously $-SO_2(C_1-C_6 \text{ alkyl})$.

30

Embodiment 136. Compounds according to embodiment 135, wherein

20

is benzyl or phenethyl, wherein each is optionally R_5 substituted with 1, 2, 3, 4, or 5 groups that are independently C_1-C_6 alkyl, $-C(0)NR_6R_7$, $-(C_1-C_4$ alkyl)- $C(0)NR_6R_7$, halogen, C_1-C_6 alkoxy, CO_2H_1 , $-(C_1-C_4$ alkyl)- CO_2H_1 , 5 . C_1 - C_6 thioalkoxy, amidinooxime, C_1 - C_6 alkoxycarbonyl, -(C_1 - C_4 alkyl)- C_1 - C_6 alkoxycarbonyl, C_1 - C_6 hydroxyalkyl, -(C_1 - C_4 alkyl)-CN, CN, phenyl C_1 - C_6 alkoxy, OH, C_1 - C_4 haloalkyl, C_1-C_4 haloalkoxy, $NR_6R_7-(C_1-C_6$ alkyl)-, NR_8R_9 , alkyl)-NR₁₅C(O)R₁₈, amidinooxime, -SO₂(C₁-C₆ alkyl), -O-CH₂-10 O-, -O-CH₂CH₂-O-, phenyl C₁-C₄ alkoxy, or phenyl; wherein R_6 and R_7 at each occurrence are independently H, OH, C_1 - C_6 alkyl, amino C_1-C_4 alkyl, $NH(C_1-C_6$ alkyl) alkyl, $N(C_1-C_6)$ C_6 alkyl) (C_1 - C_6 alkyl) C_1 - C_6 alkyl, C_1 - C_6 hydroxyalkyl, C_1-C_6 alkoxy C_1-C_6 alkyl, $-SO_2(C_1-C_6$ alkyl) each of 15 which is optionally substituted with 1, 2, or 3 groups that are independently halogen, OH, SH, C3-C6 cycloalkyl, C₁-C₄ alkoxy, C₁-C₄ alkyl, OH, CF₃, or OCF_3 ; and

 R_{18} is C_1 - C_6 alkyl optionally substituted with -O-(C_2 - C_6 alkanoyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkyl; amino C_1 - C_6 alkyl, mono or dialkylamino C_1 - C_6 alkyl.

In this embodiment, it is preferred that R_6 and R_7 are not simultaneously OH; and

25 R_6 and R_7 are not simultaneously $-SO_2(C_1-C_6$ alkyl).

Embodiment 137. Compounds according to embodiment 136, wherein

 R_5 is benzyl which is optionally substituted with 1, 2, 3, 4, or 5 groups that are independently C_1 - C_4 alkyl, -C(O)NR₆R₇, -(C_1 - C_4 alkyl)-C(O)NR₆R₇, halogen, C_1 - C_4 alkoxy, C_2 H, C_1 - C_4 thioalkoxy, C_1 - C_4 alkoxycarbonyl, C_1 - C_6 hydroxyalkyl, CN,

5

10

20

25

OH, NR_6R_7 -(C_1 - C_6 alkyl)-, NR_8R_9 , $-SO_2$ (C_1 - C_6 alkyl), or benzyloxy; wherein

 R_6 and R_7 at each occurrence are independently H, OH, $C_1\text{-}C_6$ alkyl, amino $C_1\text{-}C_4$ alkyl, NH($C_1\text{-}C_6$ alkyl)alkyl, N($C_1\text{-}C_6$ alkyl)($C_1\text{-}C_6$ alkyl) $C_1\text{-}C_6$ alkyl, $C_1\text{-}C_6$ hydroxyalkyl, $C_1\text{-}C_6$ alkoxy $C_1\text{-}C_6$ alkyl, $-\text{SO}_2(C_1\text{-}C_6$ alkyl) each of which is optionally substituted with 1, 2, or 3 groups that are independently halogen, OH, SH, $C_3\text{-}C_6$ cycloalkyl, $C_1\text{-}C_4$ alkoxy, $C_1\text{-}C_4$ alkyl, OH, CF3, or OCF3.

In this embodiment, it is preferred that R_6 and R_7 are not simultaneously OH; and

 R_6 and R_7 are not simultaneously $-SO_2(C_1-C_6 \text{ alkyl})$.

15 Embodiment 138. Compounds according to embodiment 137, wherein

 R_5 is benzyl which is optionally substituted with 1, 2, 3, 4, or 5 groups that are independently C_1 - C_4 alkyl, -C(O)NR₆R₇, -(C_1 - C_4 alkyl)-C(O)NR₆R₇, halogen, C_1 - C_4 alkoxy, C_1 - C_4 thioalkoxy, C_1 - C_4 alkoxycarbonyl, C_1 - C_6 hydroxyalkyl, CN, NR₈R₉, or NR₆R₇-(C_1 - C_6 alkyl)-; wherein

R₆ and R₇ at each occurrence are independently H, OH, C₁-C₆ alkyl, amino C₁-C₄ alkyl, NH(C₁-C₆ alkyl)alkyl, N(C₁-C₆ alkyl)(C₁-C₆ alkyl) C₁-C₆ alkyl, C₁-C₆ hydroxyalkyl, or C₁-C₄ alkoxy C₁-C₄ alkyl each of which is optionally substituted with 1, 2, or 3 groups that are independently halogen, OH, SH, C₃-C₆ cycloalkyl, C₁-C₄ alkoxy, C₁-C₄ alkyl, OH, CF₃, or OCF₃.

In this embodiment, it is preferred that R_6 and R_7 are not 30 simultaneously OH.

Embodiment 139. Compounds according to embodiment 138, wherein

10

15

the R_5 group is disubstituted with two groups that are meta to each other.

Embodiment 140. Compounds according to embodiment 135, wherein

 R_5 is benzyl which is optionally substituted with 1, 2, 3, 4, or 5 groups that are independently C_1-C_4 alkyl, $-C(0)NR_6R_7$, alkyl)- $C(0)NR_6R_7$, - (C₁-C₄ NR_8R_9 , $NR_6R_7 - (C_1 - C_6)$ alkyl)-, halogen, C_1-C_4 alkoxy, CO_2H , $-(C_1-C_4$ alkyl)- CO_2H , $-(C_1-C_4)$ $alkyl)-C_1-C_6$ alkoxycarbonyl, $-(C_1-C_4$ alkyl)-CN, CN, phenyl CF_3 , OCF_3 , $-(C_1-C_4)$ alkyl) - $NR_{15}C(O)R_{18}$, alkoxy, amidinooxime, -O-CH₂-O-, -O-CH₂CH₂-O-, or phenyl; wherein R_6 and R_7 at each occurrence are independently H, C_1 - C_4 alkyl, amino C_1-C_4 alkyl, $NH(C_1-C_4$ alkyl) alkyl, $N(C_1-C_4)$ C_4 alkyl) (C_1 - C_4 alkyl) C_1 - C_4 alkyl, C_1 - C_6 hydroxyalkyl, C_1-C_4 alkoxy C_1-C_4 alkyl, or OH, each of which is optionally substituted with 1, 2, or 3 groups that are independently halogen, OH, SH, C3-C6 cycloalkyl, C_1-C_4 alkoxy, C_1-C_4 alkyl, OH, CF_3 , or OCF_3 ; and

20 R_{18} is C_1 - C_6 alkyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 alkoxy, C_1 - C_4 alkoxy C_1 - C_6 alkyl; amino C_1 - C_6 alkyl, mono or dialkylamino C_1 - C_6 alkyl.

In this embodiment, it is preferred that R_6 and R_7 are not simultaneously OH.

25

Embodiment 141. Compounds according to embodiment 135, wherein

R₅ is benzyl or phenethyl, wherein each is optionally substituted with 1, 2, 3, 4, or 5 groups that are independently C₁-C₆ alkyl, -C(0)NR₆R₇, -(C₁-C₄ alkyl)-C(0)NR₆R₇, halogen, C₁-C₆ alkoxy, CO₂H, -(C₁-C₄ alkyl)-CO₂H, C₁-C₆ thioalkoxy, amidinooxime, C₁-C₆ alkoxycarbonyl, -(C₁-C₄ alkyl)-C₁-C₆ alkoxycarbonyl, C₁-C₆ hydroxyalkyl, -(C₁-C₄

15

25

30

alkyl)-CN, CN, phenyl C1-C6 alkoxy, OH, C1-C4 haloalkyl, C_1-C_4 haloalkoxy, NR_8R_9 , $NR_6R_7-(C_1-C_6$ alkyl)-, $-(C_1-C_4)$ alkyl)-NR₁₅C(O)R₁₈, amidinooxime, -SO₂(C₁-C₆ alkyl), -O-CH₂-O-, -O-CH₂CH₂-O-, phenyl C₁-C₄ alkoxy, or phenyl; wherein R_6 , R_7 , and the nitrogen to which they are attached form a 5 piperidinyl, pyrrolidinyl, piperazinyl, morpholinyl, thiomorpholinyl, rinq optionally substituted with 1 or2 groups that independently alkyl, hydroxy, hydroxy C1-C4 alkyl, or 10 halogen,

 R_{18} is C_1 - C_6 alkyl optionally substituted with -O-(C_2 - C_6 alkanoyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkyl; amino C_1 - C_6 alkyl, mono or dialkylamino C_1 - C_6 alkyl.

In this embodiment, it is preferred that R_6 and R_7 are not simultaneously OH; and

 R_6 and R_7 are not simultaneously $-SO_2(C_1-C_6 \text{ alkyl})$.

Embodiment 142. Compounds according to embodiment 20 141, wherein

 R_5 is benzyl which is optionally substituted with 1, 2, 3, 4, or 5 groups that are independently C_1 - C_4 alkyl, - $C(O)NR_6R_7$, - $(C_1$ - C_4 alkyl)- $C(O)NR_6R_7$, halogen, C_1 - C_4 alkoxy, CO_2H , C_1 - C_4 thioalkoxy, C_1 - C_4 alkoxycarbonyl, C_1 - C_6 hydroxyalkyl, CN, OH, NR_8R_9 , NR_6R_7 - $(C_1$ - C_6 alkyl)-, - $SO_2(C_1$ - C_6 alkyl), or benzyloxy; and wherein

 R_6 and R_7 at each occurrence are independently H, OH, C_1 - C_6 alkyl, amino C_1 - C_4 alkyl, NH(C_1 - C_6 alkyl)alkyl, N(C_1 - C_6 alkyl)(C_1 - C_6 alkyl) C_1 - C_6 alkyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 alkoxy C_1 - C_6 alkyl, or -SO₂(C_1 - C_6 alkyl), each of which is optionally substituted with 1, 2, or 3 groups that are independently halogen, OH, SH, C_3 - C_6

20

cycloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 alkyl, OH, CF_3 , or OCF_3 .

In this embodiment, it is preferred that R_6 and R_7 are not simultaneously OH; and

5 R_6 and R_7 are not simultaneously $-SO_2(C_1-C_6 \text{ alkyl})$.

Embodiment 143. Compounds according to embodiment 135, wherein

 R_5 is benzyl which is optionally substituted with 1, 2, 3, 4, or 5 groups that are independently C_1 - C_4 alkyl, -C(O)NR₆R₇, -(C_1 - C_4 alkyl)-C(O)NR₆R₇, NR₆R₇-(C_1 - C_6 alkyl)-, NR₈R₉, halogen, C_1 - C_4 alkoxy, C_1 - C_4 thioalkoxy, C_1 - C_4 alkoxycarbonyl, C_1 - C_6 hydroxyalkyl, or CN; wherein

 R_6 and R_7 at each occurrence are independently H, OH, C_1 - C_6 alkyl, amino C_1 - C_4 alkyl, NH(C_1 - C_6 alkyl)alkyl, N(C_1 - C_6 alkyl)(C_1 - C_6 alkyl) C_1 - C_6 alkyl, C_1 - C_6 hydroxyalkyl, or C_1 - C_4 alkoxy C_1 - C_4 alkyl, each of which is optionally substituted with 1, 2, or 3 groups that are independently halogen, OH, SH, C_3 - C_6 cycloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 alkyl, OH, CF_3 , or OCF_3 .

In this embodiment, it is preferred that R_6 and R_7 are not simultaneously OH.

Embodiment 144. Compounds according to embodiment 25 143, wherein

the R_5 group is disubstituted with two groups that are meta to each other.

Embodiment 145. Compounds according to embodiment 30 125, wherein

 R_5 is phenyl, which is optionally substituted with 1, 2, 3, 4, or 5 groups that are independently C_1 - C_4 alkyl, -C(0)NR₆R₇, -NR₆R₇, NR₆R₇(C_1 - C_6 alkyl), NR₈R₉, C_1 - C_6 hydroxyalkyl,

5

10

15

25

halogen, C_1 - C_4 alkoxy, CO_2H , OH, C_1 - C_6 alkoxycarbonyl, carboxaldehyde, C_1 - C_4 haloalkyl, -(C_1 - C_4 alkyl)- $NR_{15}C(O)NR_{16}R_{17}$, -(C_1 - C_4 alkyl)- $NR_{15}C(O)R_{18}$; wherein

R₆ and R₇ at each occurrence are independently H, OH, C_1 - C_6 alkyl, amino C_1 - C_4 alkyl, NH(C_1 - C_6 alkyl)alkyl, N(C_1 - C_6 alkyl)(C_1 - C_6 alkyl) C_1 - C_6 alkyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 alkoxy C_1 - C_6 alkyl, -SO₂(C_1 - C_6 alkyl), -SO₂NH₂, -SO₂NH(C_1 - C_6 alkyl), -SO₂N(C_1 - C_6 alkyl)(C_1 - C_6 alkyl), or C_1 - C_6 alkanoyl, each of which is optionally substituted with 1, 2, or 3 groups that are independently halogen, OH, SH, C_3 - C_6 cycloalkyl, C_1 - C_4 alkoxy, C_1 - C_4 alkyl, OH, CF_3 , or OCF₃; or

 R_6 , R_7 , and the nitrogen to which they are attached form a piperidinyl, pyrrolidinyl, piperazinyl, or a morpholinyl ring optionally substituted with 1 or 2 groups that are independently alkyl, hydroxy, hydroxy C_1 - C_4 alkyl, or halogen,

 R_{15} is H or C_1 - C_6 alkyl;

R₁₆ and R₁₇ are independently H or C₁-C₆ alkyl; or

 R_{16} , R_{17} , and the nitrogen to which they are attached form a morpholinyl ring;

 R_{18} is C_1 - C_6 alkyl optionally substituted with -O-(C_2 - C_6 alkanoyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkyl; amino C_1 - C_6 alkyl, mono or dialkylamino C_1 - C_6 alkyl.

In this embodiment, it is preferred that R_6 and R_7 are not simultaneously OH.

Embodiment 146. Compounds according to embodiment 30 145, wherein

 R_5 is phenyl, which is optionally substituted with 1, 2, 3, 4, or 5 groups that are independently C_1 - C_4 alkyl, -(C_1 - C_4 alkyl)- $C(0)NR_6R_7$, - $C(0)NR_6R_7$, - NR_6R_7 , NR_6R_7 (C_1 - C_6 alkyl),

 NR_8R_9 , C_1 - C_6 hydroxyalkyl, halogen, C_1 - C_4 alkoxy, CO_2H , OH, C_1 - C_6 alkoxycarbonyl, carboxaldehyde, C_1 - C_4 haloalkyl, - $(C_1$ - C_4 alkyl)- $NR_{15}C(O)NR_{16}R_{17}$, - $(C_1$ - C_4 alkyl)- $NR_{15}C(O)R_{18}$; wherein

R₆ and R₇ at each occurrence are independently H, OH, C₁-C₆ alkyl, amino C₁-C₄ alkyl, NH(C₁-C₆ alkyl)alkyl, N(C₁-C₆ alkyl)(C₁-C₆ alkyl) C₁-C₆ alkyl, C₁-C₆ hydroxyalkyl, C₁-C₆ alkoxy C₁-C₆ alkyl, -SO₂(C₁-C₆ alkyl), -SO₂NH₂, -SO₂NH(C₁-C₆ alkyl), -SO₂N(C₁-C₆ alkyl)(C₁-C₆ alkyl), or C₁-C₆ alkanoyl each of which is optionally substituted with 1, 2, or 3 groups that are independently halogen, OH, SH, C₃-C₆ cycloalkyl, C₁-C₄ alkoxy, C₁-C₄ alkyl, OH, CF₃, or OCF₃;

 R_{15} is H or C_1 - C_6 alkyl;

R₁₆ and R₁₇ are independently H or C_1 - C_6 alkyl; or R₁₆, R₁₇, and the nitrogen to which they are attached form a morpholinyl ring;

 R_{18} is C_1 - C_6 alkyl optionally substituted with -O-(C_2 - C_6 alkanoyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkyl; amino C_1 - C_6 alkyl, mono or dialkylamino C_1 - C_6 alkyl.

Embodiment 147. Compounds according to embodiment 146, wherein

- 25 R_1 is halogen, methyl, ethyl, C_2 - C_4 alkenyl, C_2 - C_4 alkynyl, or carboxaldehyde;
- R₂ is benzyloxy, OH, phenyloxy, phenyloxy(C₁-C₆)alkyl, or phenyl (C₁-C₄) thioalkoxy, wherein each of the above is optionally substituted with 1, 2, 3, or 4 groups that are independently halogen, -(C₁-C₆)alkyl-N(R)-CO₂R₃₀, NR₆R₇, (C₁-C₄) haloalkyl, (C₁-C₄) haloalkoxy, (C₁-C₆) alkyl, pyridyl, or NR₆R₇-(C₁-C₆ alkyl)-; and

 R_4 is H, (C_1-C_4) alkyl optionally substituted with one or two groups that are independently CO_2H , $-CO_2$ alkyl, -C(O)NRR, $-N(R_{30})C(O)NRR$, $-N(R_{30})C(O)-(C_1-C_6)$ alkoxy, or $-NR_6R_7$, or hydroxy (C_1-C_4) alkyl.

5

Embodiment 148. Compounds according to embodiment 147, wherein

 R_5 is phenyl, which is optionally substituted with 1, 2, 3, 4, or 5 groups that are independently C_1-C_4 alkyl, $-C(0)NR_6R_7$, $-(C_1-C_4 \text{ alkyl})-C(0)NR_6R_7$, $-NR_6R_7$, NR_6R_7 ($C_1-C_6 \text{ alkyl}$), C_1-C_6 10 hydroxyalkyl, halogen, C₁-C₄ alkoxy, CO₂H, OH, C_1-C_6 alkoxycarbonyl, carboxaldehyde, C1-C4 haloalkyl, wherein R_6 and R_7 at each occurrence are independently H, OH, C_1 - C_6 alkyl, amino C_1-C_4 alkyl, $NH(C_1-C_6$ alkyl) alkyl, $N(C_1-C_6)$. 15 C_6 alkyl) (C_1 - C_6 alkyl) C_1 - C_6 alkyl, C_1 - C_6 hydroxyalkyl, C_1-C_6 alkoxy C_1-C_6 alkyl, $-SO_2(C_1-C_6$ alkyl), $-SO_2NH_2$, $-SO_2NH(C_1-C_6 \text{ alkyl}), -SO_2N(C_1-C_6 \text{ alkyl})(C_1-C_6 \text{ alkyl}),$ or C₁-C₆ alkanoyl, each of which is optionally substituted with 1, 2, or 3 groups that are 20 independently halogen, OH, SH, C3-C6 cycloalkyl, C1-C4 alkoxy, C₁-C₄ alkyl, OH, CF₃, or OCF₃.

Embodiment 149. Compounds according to embodiment 125, wherein

alkyl), 25 R_5 is thienyl(C₁-C₆ piperidinyl (C₁-C₆) alkyl, pyrrolidinyl (C_1-C_6) alkyl, imidazolidinyl (C_1-C_6) alkyl, piperazinyl (C_1-C_6) alkyl, pyridyl (C_1-C_6) alkyl, pyrimidyl (C_1-C_6) C_6) alkyl, pyridazyl (C_1-C_6) alkyl, pyrazinyl (C_1-C_6) alkyl, isoquinolinyl (C_1-C_6) alkyl, tetrahydroisoquinolinyl (C_1-C_6) 30 C_6) alkyl, indolyl (C_1-C_6) alkyl, 1H-indazolyl (C_1-C_6) alkyl, $dihydroindolonyl(C_1-C_6 \quad alkyl), \quad indolinyl(C_1-C_6 \quad alkyl),$ dihydroisoindolyl (C_1 - C_6 alkyl), dihydrobenzimdazolyl (C_1 - C_6 alkyl), or dihydrobenzoimidazolonyl(C₁-C₆ alkyl), wherein

each of the above is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently $(C_1 C_6$) alkyl, halogen, (C_1-C_6) alkoxy, (C_1-C_6) hydroxyalkyl, phenyl $(C_1 - C_6)$ alkoxy, (C_1-C_6) thioalkoxy, C_6) alkoxycarbonyl, phenyl (C_1 - C_6) alkoxycarbonyl, 5 CO_2H , CN, amidinooxime, NR_8R_9 , NR_6R_7 -(C_1 - C_6 alkyl)-, $alkyl)-C(O)NR_6R_{7}$ $C(0)NR_6R_7$ - (C₁-C₄ amidino, piperazinyl, morpholinyl, -SO₂ (C₁-C₆) alkyl, -SO₂NH₂, $-SO_2NH(C_1-C_6)$ alkyl, $-SO_2N(C_1-C_6)$ alkyl (C_1-C_6) alkyl, 10 (C_1-C_4) haloalkyl, $-(C_1-C_4)$ alkyl) $-NR_{15}C(O)NR_{16}R_{17}$, $-(C_1-C_4)$ C_4 alkyl)-NR₁₅C(O)R₁₈, -O-CH₂-O, -O-CH₂CH₂-O-, or (C₁-C₄) haloalkoxy; wherein R_6 and R_7 are independently at each occurrence H, (C_1-C_6) alkyl, (C_1-C_6) alkoxy, (C_1-C_6) alkoxy (C_1-C_6) (C_1-C_6) alkoxycarbonyl, 15 C_6) alkyl, C_6) hydroxyalkyl, $-(C_1-C_4)$ alkyl- $CO_2-(C_1-C_6)$ alkyl, (C_1-C_6) alkanoyl, phenyl (C_1-C_6) alkyl, phenyl (C_1-C_6) C_6).alkoxy, or phenyl (C_1-C_6) alkanoyl, wherein is unsubstituted each of the above substituted with 1, 2, or 3 groups that are 20 independently, halogen, (C₁-C₄)alkoxy, OH, C_3-C_6 cycloalkyl, NH_2 , $NH(C_1-C_6$ alkyl), $N(C_1-C_6)$ alkyl) $(C_1-C_6 \text{ alkyl})$, (C_1-C_4) alkyl, CF_3 or OCF_3 ; or R_6 , R_7 , and the nitrogen to which they are attached 25 form a morpholinyl, thiomorpholinyl, piperidinyl, pyrrolidinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C_1-C_4 alkyl, 30 hydroxy, hydroxy C₁-C₄ alkyl, or halogen; and R_{18} is C_1 - C_6 alkyl optionally substituted with -O-(C_2 -

 C_6 alkanoyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 alkoxy,

15

20

 C_1 - C_6 alkoxy C_1 - C_6 alkyl; amino C_1 - C_6 alkyl, mono or dialkylamino C_1 - C_6 alkyl.

In this embodiment, it is preferred that R_6 and R_7 are not simultaneously OH; and

5 R_6 and R_7 are not simultaneously $-SO_2(C_1-C_6 \text{ alkyl})$.

Embodiment 150. Compounds according to embodiment 149, wherein

- R_1 is halogen, methyl, ethyl, C_2 - C_4 alkenyl, C_2 - C_4 alkynyl, or carboxaldehyde;
 - R_2 is benzyloxy, OH, phenyloxy, phenyloxy(C_1 - C_6) alkyl, or phenyl (C_1 - C_4) thioalkoxy, wherein each of the above is optionally substituted with 1, 2, 3, or 4 groups that are independently halogen, $-(C_1-C_6)$ alkyl-N(R)- CO_2R_{30} , NR_6R_7 , (C_1 - C_4) haloalkyl, (C_1 - C_4) haloalkoxy, (C_1 - C_6) alkyl, pyridyl, or NR_6R_7 -(C_1 - C_6 alkyl)-; and
 - R_4 is H, (C_1-C_4) alkyl optionally substituted with one or two groups that are independently CO_2H , $-CO_2$ alkyl, -C(O) NRR, $-N(R_{30})C(O)$ NRR, $-N(R_{30})C(O)-(C_1-C_6)$ alkoxy, or $-NR_6R_7$, or hydroxy (C_1-C_4) alkyl.

Embodiment 151. Compounds according to embodiment 150, wherein

 R_5 is thienyl(C_1 - C_6 alkyl), indolyl(C_1 - C_6 alkyl), pyridinyl(C_1 - C_6 alkyl), piperazinyl(C_1 - C_6 alkyl), or pyrazinyl(C_1 - C_6 alkyl) 25 each of which is optionally substituted with 1, 2, or 3 independently C₁-C₄ alkyl, groups that are hydroxyalkyl, halogen, $-C(0)NR_6R_7$, $-(C_1-C_4 alkyl)-C(0)NR_6R_7$ $C_1 - C_6$ alkoxycarbonyl, $-NR_6R_7$, $NR_6R_7 - (C_1 - C_6)$ alkyl)-, 30 haloalkyl, C₁-C₆ alkanoyl,

 R_6 and R_7 at each occurrence are independently H, $C_1\text{-}C_6$ alkyl optionally substituted with 1, 2, or 3 groups

that are independently C_1 - C_4 alkoxycarbonyl, halogen, C_3 - C_6 cycloalkyl, OH, SH, or C_1 - C_4 alkoxy;

or

- R₆, R₇, and the nitrogen to which they are attached form a piperidinyl, pyrrolidinyl, piperazinyl, or a morpholinyl ring optionally substituted with 1 or 2 groups that are independently alkyl, hydroxy, hydroxy C₁-C₄ alkyl, or halogen.
- 10 Embodiment 152. Compounds according to embodiment 151, wherein
 - R_5 is thienyl(C_1 - C_6 alkyl), indolyl(C_1 - C_6 alkyl), pyridinyl(C_1 - C_6 alkyl), piperazinyl(C_1 - C_6 alkyl), or pyrazinyl(C_1 - C_6 alkyl).

15

5

- Embodiment 153. Compounds according to embodiment 151, wherein
- R_4 is H, methyl, ethyl, or $-CH_2OH$;
- $R_5 \ is \ pyridinyl(C_1-C_6 \ alkyl), \ or \ pyrazinyl(C_1-C_6 \ alkyl) \ each \ of$ which is optionally substituted with 1, 2, or 3 groups that are independently C_1-C_4 alkyl, C_1-C_4 hydroxyalkyl, halogen, $-C(0)NR_6R_7$, $-(C_1-C_4 \ alkyl)-C(0)NR_6R_7$, C_1-C_6 alkoxycarbonyl, $-NR_6R_7$, $NR_6R_7-(C_1-C_6 \ alkyl)-$, CF_3 , C_1-C_6 alkanoyl, wherein
- R₆ and R₇ at each occurrence are independently H, C_1 - C_6 alkyl optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkoxycarbonyl, halogen, C_3 - C_6 cycloalkyl, OH, SH, or C_1 - C_4 alkoxy;

or

30 R_6 , R_7 , and the nitrogen to which they are attached form a piperidinyl, pyrrolidinyl, piperazinyl, or a morpholinyl ring optionally substituted with 1 or 2

15

groups that are independently alkyl, hydroxy, hydroxy C_1 - C_4 alkyl, or halogen.

- Embodiment 154. Compounds according to embodiment 5 153, wherein
 - R_4 is H, alkyl substituted with one or two groups that are independently CO_2H , $-CO_2-(C_1-C_6)$ alkyl, -C(O) NRR, $-N(R_{30})C(O)$ NRR, $-N(R_{30})C(O)-(C_1-C_6)$ alkoxy, or $-NR_6R_7$.
- 10 Embodiment 155. Compounds according to embodiment 16, wherein
 - R₁ is halogen, or methyl;
 - R_2 is benzyloxy, which is optionally substituted with 1, 2, 3, or 4 groups that are independently halogen, -(C_1 - C_6)alkyl-N(R)- CO_2R_{30} , CF_3 , OCF_3 , or (C_1 - C_4) alkyl,; and
 - R_4 is H, methyl, ethyl, $-CH_2OH$, $-CH_2CO_2-(C_1-C_4$ alkyl), or C_2 hydroxyalkyl.
- Embodiment 156. Compounds according to any one of 20 embodiments 16, 17, 138, 143, 148, 149, 151 or 153, wherein R_1 is halogen, or methyl;
 - R_2 is benzyloxy, which is optionally substituted with 1, 2, 3, or 4 groups that are independently halogen, $-(C_1-C_6)$ alkyl- $N(R)-CO_2R_{30}$, CF_3 , OCF_3 , or (C_1-C_4) alkyl,; and
- 25 R_4 is alkyl substituted with one group that is CO_2H , $-CO_2-(C_1-C_6)$ alkyl, -C(0) NRR, $-N(R_{30})$ C(0) NRR, $-N(R_{30})$ $C(0)-(C_1-C_6)$ alkoxy, or $-NR_6R_7$.
- Embodiment 157. Compounds according to embodiment 30 125, wherein
 - R_5 is isoquinolinyl(C_1 - C_6 alkyl), tetrahydroisoquinolinyl(C_1 - C_6 alkyl), lH-indazolyl(C_1 - C_6 alkyl), dihydroindolonyl(C_1 - C_6 alkyl), indolinyl(C_1 - C_6 alkyl), dihydroisoindolyl(C_1 - C_6

- dihydrobenzimdazolyl(C1-C6 alkyl), alkyl), dihydrobenzoimidazolonyl $(C_1-C_6 \text{ alkyl})$, each of which is unsubstituted or substituted with 1, 2, or 3 groups that alkyl, alkoxy, independently halogen, are $C_1 - C_6$ alkoxycarbonyl, alkanoyl optionally substituted with 1 or 5 2 groups that are independently selected from the group consisting of OH, NH_2 , $NH(C_1-C_6 \text{ alkyl})$, and $N(C_1-C_6 \text{ alkyl})$ $(C_1-C_6 \text{ alkyl})$, $-C(0)NR_6R_7$, $-(C_1-C_4 \text{ alkyl})-C(0)NR_6R_7$, NR_6R_7 - $(C_1-C_6 \text{ alkyl})$ -, $-NR_6R_7$, or SO_2H ; or
- piperidinyl C_1 - C_4 alkyl optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkyl, C_1 - C_4 alkoxy, halogen, $-C(0)NR_6R_7$, $-(C_1-C_4$ alkyl)- $C(0)NR_6R_7$, NR_6R_7 - $(C_1-C_6$ alkyl)-, or $-NR_6R_7$, or C_1 - C_6 alkoxycarbonyl.
- 15 Embodiment 158. Compounds according to embodiment 157, wherein
- $R_5 \quad \text{is isoquinolinyl} \ (C_1-C_4 \quad \text{alkyl}) \,, \quad \text{piperidinyl} \quad C_1-C_4 \quad \text{alkyl} \,, \\ \quad \text{tetrahydroisoquinolinyl} \ (C_1-C_4 \quad \text{alkyl}) \,, \quad \text{1H-indazolyl} \ (C_1-C_4 \quad \text{alkyl}) \,, \quad \text{indolinyl} \ (C_1-C_4 \quad \text{alkyl}) \,, \quad \text{indolinyl} \ (C_1-C_4 \quad \text{alkyl}) \,, \\ \quad \text{alkyl} \,, \qquad \text{dihydroisoindolyl} \ (C_1-C_4 \quad \text{alkyl}) \,, \qquad \text{or} \\ \quad \text{dihydrobenzoimidazolonyl} \ (C_1-C_4 \quad \text{alkyl}) \,. \\ \end{aligned}$
- Embodiment 159. Compounds according to embodiment 25 157, wherein
 - R_5 is piperidinyl C_1 - C_4 alkyl optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkyl, C_1 - C_4 alkoxy, halogen, or C_1 - C_6 alkoxycarbonyl.
- 30 Embodiment 160. Compounds according to embodiment 125, wherein
 - R_{S} is pyrimidyl, indolinyl, indolyl, 1H-isoindolyl, isoquinolinyl, tetrahydroisoquinolinyl, benzimidazolyl,

dihydro-1H-benzimidazolyl, pyrrolyl, imidazolyl, or each of which is optionally substituted with 1, 2, or 3 groups independently selected from the group consisting of C_1 - C_6 alkoxycarbonyl, C_1 - C_4 thioalkoxy, each of which is 5 unsubstituted or substituted with 1, 2, or 3 groups that are independently $-C(0)NR_6R_7$, $-(C_1-C_4 \text{ alkyl})$ - $C(0)NR_6R_7$, NR_6R_7 - $(C_1$ - C_6 alkyl)-, $-NR_6R_7$, alkyl, alkoxy, halogen, C₁-C₆ alkoxycarbonyl, or alkanoyl optionally substituted with 1 or 2 groups 10 independently selected from the group consisting of OH, NH_2 , $NH(C_1-C_6 \text{ alkyl})$, and $N(C_1-C_6 \text{ alkyl})$ (C_1-C_6 alkyl), and SO₂H; or pyridyl, pyrazolyl, optionally substituted with 1, 2, or 3 groups that are independently $-C(0)NR_6R_7$, $-(C_1-C_4)$ 15 alkyl)- $C(O)NR_6R_7$, NR_6R_7 - $(C_1-C_6$ alkyl)-, $-NR_6R_7$, $C_1 - C_4$ hydroxyalkyl, alkyl, halogen, alkoxycarbonyl, $-NR_6R_7$, NR_6R_7 -(C_1 - C_6 alkyl)-, CF_3 , C_1 -C₆ alkanoyl, wherein R_6 and R_7 at each occurrence are independently H, C_1 -20 C₆ alkyl optionally substituted with 1, 2, or 3 groups that are independently $C_1 - C_4$ alkoxycarbonyl, halogen, C3-C6 cycloalkyl, OH, SH, or C_1-C_4 alkoxy; or 25 R_6 , R_7 , and the nitrogen to which they are attached form a piperidinyl, pyrrolidinyl, piperazinyl, or a morpholinyl ring optionally substituted with 1 or 2 groups that are independently alkyl, hydroxy, hydroxy C_1-C_4 alkyl, or halogen.

30

Embodiment 161. Compounds according to embodiment 160, wherein

30

R₅ is pyrimidyl, pyrrolyl, imidazolyl, or pyrazolyl, each of which is optionally substituted with 1, 2, or 3 groups independently selected from C₁-C₆ alkoxycarbonyl, C₁-C₄ thioalkoxy, each of which is unsubstituted or substituted with 1, 2, or 3 groups that are independently alkyl, alkoxy, halogen, C₁-C₆ alkoxycarbonyl, -C(0)NR₆R₇, -(C₁-C₄ alkyl)-C(0)NR₆R₇, NR₆R₇-(C₁-C₆ alkyl)-, or -NR₆R₇, or C₁-C₄ alkanoyl optionally substituted with 1 or 2 groups that are independently selected from the group consisting of OH, NH₂, NH(C₁-C₆ alkyl), and N(C₁-C₆ alkyl) (C₁-C₆ alkyl), or SO₂H.

Embodiment 162. Compounds according to embodiment 160, wherein

- 15 R_5 is pyridyl or pyrazolyl, optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkyl, C_1 - C_4 hydroxyalkyl, halogen, -C(O)NR₆R₇, -(C₁-C₄ alkyl)-C(O)NR₆R₇, NR₆R₇-(C₁-C₆ alkyl)-, or -NR₆R₇, C₁-C₆ alkoxycarbonyl, -NR₆R₇, NR₆R₇-(C₁-C₆ alkyl)-, CF₃, C₁-C₆ alkanoyl, wherein
- 20 R_6 and R_7 at each occurrence are independently H, C_1 - C_6 alkyl optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkoxycarbonyl, halogen, C_3 - C_6 cycloalkyl, OH, SH, or C_1 - C_4 alkoxy; or
- 25 R₆, R₇, and the nitrogen to which they are attached form a piperidinyl, pyrrolidinyl, piperazinyl, or a morpholinyl ring optionally substituted with 1 or 2 groups that are independently alkyl, hydroxy, hydroxy C₁-C₄ alkyl, or halogen.

Embodiment 163. Compounds according to embodiment 162, wherein

 R_5 is pyridyl or pyrazolyl, optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkyl, C_1 - C_4 hydroxyalkyl, halogen, $-C(O)NR_6R_7$, $-(C_1$ - C_4 alkyl)- $C(O)NR_6R_7$, NR_6R_7 - $(C_1$ - C_6 alkyl)-, $-NR_6R_7$, C_1 - C_6 alkoxycarbonyl, CF_3 , C_1 - C_6 alkanoyl, wherein

 R_6 and R_7 at each occurrence are independently H, C_1 - C_6 alkyl optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkoxycarbonyl, halogen, C_3 - C_6 cycloalkyl, OH, SH, or C_1 - C_4 alkoxy.

10

5

Embodiment 164. Compounds according to embodiment 162, wherein

 R_5 is pyridyl or pyrazolyl, optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkyl, C_1 - C_4 hydroxyalkyl, halogen, $-C(O)NR_6R_7$, $-(C_1$ - C_4 alkyl)- $C(O)NR_6R_7$, NR_6R_7 - $(C_1$ - C_6 alkyl)-, $-NR_6R_7$, C_1 - C_6 alkoxycarbonyl, CF_3 , C_1 - C_6 alkanoyl, wherein

R₆, R₇, and the nitrogen to which they are attached form a piperidinyl, pyrrolidinyl, piperazinyl, or a morpholinyl ring optionally substituted with 1 or 2 groups that are independently alkyl, hydroxy, hydroxy C₁-C₄ alkyl, or halogen.

Embodiment 165. Compounds according to any one of embodiments 157, 158, 159, 160, 161, 162, 163, or 164 wherein R_1 is halogen, methyl, ethyl, C_2 - C_4 alkenyl, C_2 - C_4 alkynyl, or carboxaldehyde;

R₂ is benzyloxy, OH, phenyloxy, phenyloxy(C₁-C₆)alkyl, or phenyl (C₁-C₄) thioalkoxy, wherein each of the above is optionally substituted with 1, 2, 3, or 4 groups that are independently halogen, -(C₁-C₆)alkyl-N(R)-CO₂R₃₀, NR₆R₇, (C₁-C₄) haloalkyl, (C₁-C₄) haloalkoxy, (C₁-C₆) alkyl, pyridyl, or NR₆R₇-(C₁-C₆ alkyl)-; and

- R_4 is H, (C_1-C_4) alkyl substituted with one group that is CO_2H , $-CO_2-(C_1-C_6)$ alkyl, -C(O) NRR, $-N(R_{30})$ C(O) NRR, $-N(R_{30})$ C(O) (C_1-C_6) alkoxy, or $-NR_6R_7$, hydroxy (C_1-C_4) alkyl.
- 5 Embodiment 166. Compounds according to embodiment 125, wherein
 - R_5 is $C_1\text{-}C_6$ alkyl optionally substituted with 1 or 2, groups that are independently $C_1\text{-}C_4$ alkoxycarbonyl, or halogen, or
- 10 R_5 is C_1 - C_4 alkoxy, ethyl, methyl, cyclopropylmethyl, cycloalkyl, or alkynyl, or
 - R_5 is C_2 - C_6 alkenyl optionally substituted with C_1 - C_4 alkoxycarbonyl or cyclohexyl.
- 15 Embodiment 167. Compounds according to embodiment 166, wherein
 - R_1 is halogen, methyl, ethyl, C_2 - C_4 alkenyl, C_2 - C_4 alkynyl, or carboxaldehyde;
- R₂ is benzyloxy, OH, phenyloxy, phenyloxy(C_1 - C_6) alkyl, or phenyl (C_1 - C_4) thioalkoxy, wherein each of the above is optionally substituted with 1, 2, 3, or 4 groups that are independently halogen, $-(C_1-C_6)$ alkyl-N(R)- CO_2R_{30} , NR_6R_7 , (C_1 - C_4) haloalkyl, (C_1 - C_4) haloalkoxy, (C_1 - C_6) alkyl, pyridyl, or NR_6R_7 -(C_1 - C_6 alkyl)-; and
- 25 R_4 is H, (C_1-C_4) alkyl substituted with one group that is CO_2H , $-CO_2-(C_1-C_6)\,alkyl, \quad -C(O)\,NRR, \quad -N\,(R_{30})\,C\,(O)\,NRR, \quad -N\,(R_{30})\,C\,(O)\, (C_1-C_6)\,alkoxy, \; or \; -NR_6R_7, \; hydroxy\,(C_1-C_4)\,alkyl; \; wherein$
- R_6 and R_7 at each occurrence are independently H, C_1 - C_6 alkyl optionally substituted with 1, 2, or 3 groups that are independently C_1 - C_4 alkoxycarbonyl, halogen, C_3 - C_6 cycloalkyl, OH, SH, or C_1 - C_4 alkoxy;

or

5

25

30

R₆, R₇, and the nitrogen to which they are attached form a piperidinyl, pyrrolidinyl, piperazinyl, or a morpholinyl ring optionally substituted with 1 or 2 groups that are independently alkyl, hydroxy, hydroxy C₁-C₄ alkyl, or halogen.

Embodiment 168. Compounds according to embodiment 167, wherein

- R_5 is $C_1\text{-}C_6$ alkyl optionally substituted with 1 or 2, groups that are independently $C_1\text{-}C_4$ alkoxycarbonyl, or halogen, or
 - R_5 is C_1-C_4 alkoxy, ethyl, methyl, cyclopropylmethyl, cyclohexyl, cyclopentyl, C_2-C_6 alkynyl, or
- R_5 is C_2 - C_6 alkenyl optionally substituted with C_1 - C_4 . 15 alkoxycarbonyl or cyclohexyl.

Embodiment 169. Compounds according to embodiment 125, wherein

R₂ is phenylalkynyl, $-OC(0)NH(CH_2)_naryl$, 20 $-OC(0)N(alkyl)(CH_2)_naryl$, $-OSO_2(C_1-C_6)alkyl$, $-OSO_2aryl$, NR_8R_9 , or $NR_8R_9-(C_1-C_4 alkyl)$; wherein n is 0, 1, 2, 3, 4, 5 or 6;

each of the above is unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, $-(C_1-C_6)$ alkyl-N(R)-CO₂R₃₀, alkoxy, alkoxycarbonyl, CN, NR₆R₇, haloalkyl, haloalkoxy, alkyl, heteroaryl, heteroarylalkyl, NR₆R₇-(C₁-C₆ alkyl)-, phenyl, -SO₂-phenyl wherein the phenyl groups are optionally substituted with 1, 2, or 3 groups that are independently halogen or NO₂; or -OC(O)NR₆R₇, wherein R₆ and R₇ are independently at each occurrence H, alkyl, alkoxy, alkoxyalkyl, alkoxycarbonyl, -SO₂-alkyl, OH, hydroxyalkyl, -(C₁-C₄)alkyl-CO₂-

5

10

15

alkyl, heteroarylalkyl, alkanoyl, arylalkyl, arylalkoxy, or arylalkanoyl, wherein each of the above is unsubstituted or substituted with 1, 2, or 3 groups that are independently, halogen, alkoxy, heterocycloalkyl, OH, NH₂, C₃-C₆ cycloalkyl, NH(alkyl), N(alkyl)(alkyl), -O-alkanoyl, alkyl, C_1 -C₄ haloalkyl, or C_1 -C₄ haloalkoxy; or

R₆, R₇, and the nitrogen to which they are attached form a morpholinyl, thiomorpholinyl, piperidinyl, pyrrolidinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C₁-C₄ alkyl, C₁-C₄ alkoxy, hydroxy, hydroxy C₁-C₄ alkyl, or halogen.

Embodiment 170. Compounds according to embodiment 169, wherein

 R_1 is halogen, methyl, ethyl, $C_2\text{-}C_4$ alkenyl, $C_2\text{-}C_4$ alkynyl, or carboxaldehyde; and

 R_4 is H, (C_1-C_4) alkyl substituted with one group that is CO_2H , $-CO_2-(C_1-C_6)\,alkyl, \quad -C(O)\,NRR, \quad -N\,(R_{30})\,C\,(O)\,NRR, \quad -N\,(R_{30})\,C\,(O) - (C_1-C_6)\,alkoxy, \quad -NR_6R_7, \quad NR_6R_7-(C_1-C_6)\,alkyl) - , \quad \text{or hydroxy}\,(C_1-C_4)\,alkyl.$

25

Embodiment 171: Compounds according to embodiment 170, wherein

 R_5 is phenyl, optionally substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, C_1 - C_4 alkyl, C_1 - C_4 alkoxy, CF_3 , OCF_3 , $-(C_1$ - C_4 alkyl)- $C(O)NR_6R_7$, NR_6R_7 - $(C_1$ - C_6 alkyl)-, $-NR_6R_7$, or $C(O)NR_6R_7$, wherein

 R_6 and R_7 are independently at each occurrence H, C_1 - C_6 alkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkoxy, C_1 - C_6 alkyl, C_1 - C_6

5

15

20

alkoxycarbonyl, OH, C_1-C_6 hydroxyalkyl, C₄) alkyl-CO₂-alkyl, pyridyl C_1-C_6 alkyl, $C_1 - C_6$ alkanoyl, benzyl, phenyl C₁-C₆ alkoxy, or phenyl C₁alkanovl, wherein each of the above unsubstituted or substituted with 1, 2, or 3 groups independently, halogen, C_1 - C_6 alkoxy, that are piperidinyl C₁-C₆ alkyl, morpholinyl C₁-C₆ alkyl, piperazinyl C_1 - C_6 alkyl, OH, SH, C_3 - C_6 cycloalkyl, NH_2 , NH(alkyl), N(alkyl)(alkyl), $-O-C_1-C_4$ alkanoyl, C_1-C_4 alkyl, CF_3 , or OCF_3 ; or

10 C_1 - C_4 alkyl, CF_3 , or OCF_3 ; or R_6 , R_7 , and the nitrogen to which they are attached form a

R₆, R₇, and the nitrogen to which they are attached form a morpholinyl, thiomorpholinyl, piperidinyl, pyrrolidinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C₁-C₄ alkyl, C₁-C₄ alkoxy, hydroxy, hydroxy C₁-C₄ alkyl, or halogen; or

 R_5 is benzyl optionally substituted with 1 ,2 ,3 ,4, or 5 groups that are independently halogen, C_1 - C_6 alkyl, C_1 - C_6 alkoxy, CN, CF_3 , OCF_3 , $-(C_1$ - C_4 alkyl)- $C(O)NR_6R_7$, NR_6R_7 - $(C_1$ - C_6 alkyl)-, $-NR_6R_7$, or $C(O)NR_6R_7$.

Embodiment 172. Compounds according to embodiment 171, wherein

 R_2 is NR_8R_9 , or NR_8R_9 -(C_1 - C_4 alkyl)-; wherein

25 R₈ at each occurrence is independently hydrogen, C₁-C₆ alkyl, C₁-C₆ alkanoyl, phenyl(C₁-C₆)alkyl or phenyl(C₁-C₆)alkanoyl wherein each of the above is optionally substituted with 1, 2, 3, 4, or 5 groups that are independently C₁-C₆ alkyl, C₁-C₆ alkoxy, C₁-C₆ alkoxycarbonyl, halogen, or C₁-C₄ haloalkyl; and

 R_9 at each occurrence is independently C_1 - C_6 alkyl, C_1 - C_6 alkanoyl, phenyl(C_1 - C_6) alkyl, C_3 - C_7 cycloalkyl, C_2 - C_6 alkenyl, pyridyl, pyridazinyl, pyrimidinyl,

pyrazinyl, imidazolyl, C_3 - C_7 cycloalkyl(C_1 - C_6)alkyl, phenyl(C_1 - C_6)alkanoyl, -SO₂-phenyl, and phenyl wherein each of the above is optionally substituted with 1, 2, 3, 4, or 5 groups that are independently C_1 - C_6 alkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkoxycarbonyl, halogen, or C_1 - C_4 haloalkyl.

Embodiment 173. Compounds according to embodiment 172, wherein

10 R₈ is H.

5

Embodiment 174. Compounds according to embodiment 173, wherein

 R_2 is -NH-benzyl option substituted with 1, 2, or 3 groups that are independently halogen, $C_1\text{-}C_4$ alkyl, $C_1\text{-}C_4$ alkoxy, CF_3 , OCF_3 ,

or

 R_2 is -NH-C(O)phenyl, wherein the phenyl group is optionally substituted with 1, 2, or 3 groups that are independently halogen, C_1 - C_4 alkyl, or C_1 - C_4 alkoxy; or R_2 is -NH-allyl.

Embodiment 175. Compounds according to embodiment 174, wherein

25 R_1 is chloro, bromo, iodo, or methyl; and

 R_5 is benzyl optionally substituted with 1 ,2 ,3 ,4, or 5 groups that are independently halogen, -(C_1 - C_4 alkyl)- $C(O)NR_6R_7$, NR_6R_7 -(C_1 - C_6 alkyl)-, -NR $_6R_7$, C_1 - C_6 alkyl, C_1 - C_6 alkoxy, CN, CF_3 , OCF_3 , or $C(O)NR_6R_7$.

30

Embodiment 176. Compounds according to embodiment 174, wherein

R₁ is chloro, bromo, iodo, or methyl; and

 R_5 is phenyl, optionally substituted with 1, 2, 3, 4, or 5 groups that are independently halogen, $-(C_1-C_4 \text{ alkyl})-C(O)NR_6R_7$, $NR_6R_7-(C_1-C_6 \text{ alkyl})-$, $-NR_6R_7$, $C_1-C_4 \text{ alkyl}$, $C_1-C_4 \text{ alkyy}$, CF_3 , OCF_3 , or $C(O)NR_6R_7$.

5

Embodiment 177. A compound of the formula

$$X_1 \xrightarrow{N} X_2 \xrightarrow{Y_1} Y_2$$

or pharmaceutically acceptable salts thereof, wherein

10 X_1 , X_2 , X_a , X_b , X_c , X_d , and X_e at are independently selected from $-C(O)NR_6R_7$, $-NR_6R_7$, hydroxy(C_1-C_4)alkyl, H, OH, halogen, haloalkyl, alkyl, haloalkoxy, heteroaryl, heterocycloalkyl, C_3-C_7 cycloalkyl, $NR_6R_7-(C_1-C_6$ alkyl)-, $-CO_2-(C_1-C_6)$ alkyl, $-N(R)C(O)NR_6R_7$, $-N(R)C(O)-(C_1-C_6)$ alkoxy, $CO_2H-(C_1-C_6)$ alkyl)-, or $-SO_2NR_6R_7$; wherein

the heteroaryl and heterocycloalkyl groups are optionally substituted with $-NR_6R_7$, $-C(O)NR_6R_7$, $NR_6R_7-(C_1-C_6 \ alkyl)-$, $C_1-C_6 \ alkyl$, $C_1-C_6 \ alkoxy$, or halogen;

 R_6 and R_7 are independently at each occurrence H, C_1 - C_6 alkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkoxy, C_1 - C_6 alkoxycarbonyl, OH, C_1 - C_6 hydroxyalkyl, C_1 - C_6 thiohydroxyalkyl, -(C_1 - C_4)alkyl- CO_2 -alkyl, pyridyl C_1 - C_6 alkyl, C_1 - C_6 alkanoyl, benzyl, phenyl C_1 - C_6 alkoxy, or phenyl C_1 - C_6 alkanoyl, wherein each of the above is unsubstituted or substituted with 1, 2, or 3

25

20

5

10

groups that are independently, halogen, C_3 - C_6 cycloalkyl, C_1 - C_6 alkoxy, piperidinyl C_1 - C_6 alkyl, morpholinyl C_1 - C_6 alkyl, piperazinyl C_1 - C_6 alkyl, OH, SH, NH₂, NH(alkyl), N(alkyl)(alkyl), -O- C_1 - C_4 alkanoyl, C_1 - C_4 alkyl, CF₃, or OCF₃; or

 R_6 , R_7 , and the nitrogen to which they are attached form a morpholinyl, thiomorpholinyl, piperidinyl, pyrrolidinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C_1 - C_4 alkyl, C_1 - C_4 alkoxy, hydroxy, hydroxy C_1 - C_4 alkyl, or halogen;

R at each occurrence is independently H or $C_1\text{-}C_6$ alkyl; and

Y, Y₁, Y₂, Y₃, and Y₄ are independently selected from H, halogen, alkyl, carboxaldehyde, hydroxyalkyl, alkenyl, alkynyl, CN, alkanoyl, alkoxy, alkoxyalkyl, haloalkyl, and carboxyl.

Embodiment 178. Compounds according to embodiment 20 177, wherein

 Y_2 , Y_4 , and Y are independently halogen; and Y_1 and Y_3 are both hydrogen.

Embodiment 179. Compounds according to embodiment 25 178, wherein

 X_1 is H, methyl, $-NR_6R_7$, $NR_6R_7-(C_1-C_6$ alkyl)-, $-C(O)NR_6R_7$, C_1-C_6 hydroxyalkyl, or $-(C_1-C_4$ alkyl)-morpholinyl.

Embodiment 180. Compounds according to embodiment 30 179, wherein

 X_a and X_e are independently halogen, is NH_2 , $NH(C_1-C_6$ alkyl), $N(C_1-C_6 \text{ alkyl}) (C_1-C_6 \text{ alkyl}) \text{ or methyl}.$

20

Embodiment 181. Compounds according to embodiment 180, wherein

 X_b or X_c is $-NR_6R_7$, NR_6R_7 -(C_1 - C_6 alkyl)-, $-C(O)NR_6R_7$, $-SO_2NR_6R_7$, or halogen; wherein

- 5 R_6 and R_7 are independently at each occurrence H, C_1 - C_6 alkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkoxy C_1 - C_6 alkyl, C_1 - C_6 alkoxycarbonyl, OH, C_1 - C_6 hydroxyalkyl, - $(C_1$ - $C_4)$ alkyl-CO₂-alkyl, pyridyl C_1-C_6 alkyl, C_1-C_6 alkanoyl, benzyl, phenyl C_1 - C_6 alkoxy, or phenyl C_1 - C_6 alkanoyl, wherein each of the above is unsubstituted or 10 substituted with 1, 2, or 3 groups that independently, halogen, C_3-C_6 cycloalkyl, $C_1 - C_6$ alkoxy, piperidinyl C_1 - C_6 alkyl, morpholinyl C_1 - C_6 alkyl, piperazinyl C₁-C₆ alkyl, OH, SH, NH_2 , NH(alkyl), N(alkyl)(alkyl), $-O-C_1-C_4$ alkanoyl, C_1-C_4 15 alkyl, CF3, or OCF3; or
 - R₆, R₇, and the nitrogen to which they are attached form a morpholinyl, thiomorpholinyl, piperidinyl, pyrrolidinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C₁-C₄ alkyl, C₁-C₄ alkoxy, hydroxy, hydroxy C₁-C₄ alkyl, or halogen.

Embodiment 182. Compounds according to embodiment 25 181, wherein

R₆, R₇, and the nitrogen to which they are attached form a morpholinyl, thiomorpholinyl, piperidinyl, pyrrolidinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C₁-C₄ alkyl, C₁-C₄ alkoxy, hydroxy, hydroxy C₁-C₄ alkyl, or halogen.

Embodiment 183. Compounds according to embodiment 181, wherein

 R_6 , R_7 , and the nitrogen to which they are attached form a piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C_1 - C_4 alkyl, C_1 - C_4 alkoxy, hydroxy, hydroxy C_1 - C_4 alkyl, or halogen.

5

25

Embodiment 184. Compounds according to embodiment 181, wherein

- R_6 and R_7 are independently at each occurrence H, C_1 - C_6 alkyl, alkoxy, $C_1 - C_6$ alkoxy $C_1 - C_6$ alkyl, alkoxycarbonyl, OH, C_1 - C_6 hydroxyalkyl, -(C_1 - C_4)alkyl- CO_2 -10 alkyl, pyridyl C₁-C₆ alkyl, C₁-C₆ alkanoyl, benzyl, phenyl C₁-C₆ alkoxy, or phenyl C₁-C₆ alkanoyl, wherein each of the above is unsubstituted or substituted with 1, 2, or 3 groups that are independently, halogen, C₃-C₆ cycloalkyl, 15 C_1-C_6 alkoxy, piperidinyl C_1-C_6 alkyl, morpholinyl C_1-C_6 alkyl, piperazinyl C_1 - C_6 alkyl, OH, NH_2 , NH(alkyl), N(alkyl)(alkyl), $-O-C_1-C_4$ alkanoyl, C_1-C_4 alkyl, CF_3 , or OCF₃.
- 20 Embodiment 185. Compounds according to embodiment 181, wherein
 - R₆ and R₇ are independently at each occurrence H, C₁-C₆ alkyl, C₁-C₆ hydroxyalkyl, C₁-C₆ alkoxy, C₁-C₆ alkoxy C₁-C₆ alkyl, or C₁-C₆ alkanoyl, wherein each of the above is optionally substituted with 1, 2, or 3 groups that are independently OH, SH, halogen, or C₃-C₆ cycloalkyl.
 - Embodiment 186. Compounds according to embodiment 180, wherein
- X_a and X_e are independently fluoro, chloro, or methyl; and X_c is hydrogen or halogen.

25

Embodiment 187. Compounds according to embodiment 180, wherein

X_a is halogen;

 X_e is NH_2 , $NH(C_1-C_6$ alkyl) or $N(C_1-C_6$ alkyl);

5 X_b and X_d are both hydrogen.

Embodiment 188. Compounds according to embodiment 187, wherein

X_c is -NR₆R₇, NR₆R₇ C₁-C₆ alkyl, -SO₂NR₆R₇, or halogen; wherein 10 R_6 and R_7 are independently at each occurrence H, C_1 - C_6 alkyl, C_1-C_6 alkoxy, C_1-C_6 alkoxy C_1-C_6 alkyl, C_1-C_6 alkoxycarbonyl, OH, C_1 - C_6 hydroxyalkyl, -(C_1 - C_4) alkyl- CO_2 -alkyl, pyridyl C_1 - C_6 alkyl, C_1 - C_6 alkanoyl, benzyl, phenyl C_1 - C_6 alkoxy, or phenyl C_1 - C_6 alkanoyl, 15 wherein each of the above is unsubstituted or substituted with 1, 2, or 3 groups that are independently, halogen, C_3-C_6 cycloalkyl, $C_1 - C_6$ alkoxy, piperidinyl C₁-C₆ alkyl, morpholinyl C₁-C₆ alkyl, piperazinyl C₁-C₆ alkyl, OH, 20 NH(alkyl), N(alkyl)(alkyl), $-O-C_1-C_4$ alkanoyl, C_1-C_4 alkyl, CF₃, or OCF₃; or

 R_6 , R_7 , and the nitrogen to which they are attached form a morpholinyl, thiomorpholinyl, piperidinyl, pyrrolidinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C_1 - C_4 alkyl, C_1 - C_4 alkoxy, hydroxy, hydroxy C_1 - C_4 alkyl, or halogen.

Embodiment 189. Compounds according to embodiment 30 188, wherein

 X_c is fluoro, chloro, NH_2 , $NH(C_1-C_6$ alkyl), $N(C_1-C_6$ alkyl)(C_1-C_6 alkyl), $-SO_2NH_2$, $-SO_2NH(C_1-C_6$ alkyl), $-SO_2N(C_1-C_6$ alkyl)(C_1-C_6 alkyl), or piperazinyl, wherein the piperazinyl group

is optionally substituted with 1 or 2 groups that are independently C_1 - C_4 alkyl, C_1 - C_4 alkoxy, hydroxy, hydroxy C_1 - C_4 alkyl, or halogen.

- 5 Embodiment 190. Compounds according to either embodiment 180 or 187, wherein
 - X_c is $-C(O)NR_6R_7$, $-(C_1-C_6$ alkyl)- $C(O)NR_6R_7$, NR_6R_7 , or $NR_6R_7-(C_1-C_6$ alkyl)-; wherein
- R_6 and R_7 are independently at each occurrence H, C_1 - C_6 alkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkoxy C_1 - C_6 alkyl, C_1 - C_6 10 alkoxycarbonyl, OH, C_1 - C_6 hydroxyalkyl, -(C_1 - C_4) alkyl- CO_2 -alkyl, pyridyl C_1 - C_6 alkyl, C_1 - C_6 alkanoyl, benzyl, phenyl C_1 - C_6 alkoxy, or phenyl C_1 - C_6 alkanoyl, wherein each of the above is unsubstituted or substituted with 1, 15 2, or 3 groups that are independently, halogen, $C_3 - C_6$ cycloalkyl, alkoxy, piperidinyl C_1-C_6 alkyl, morpholinyl C_1-C_6 alkyl, piperazinyl C₁-C₆ alkyl, OH, NH₂, NH(alkyl), N(alkyl)(alkyl), $-O-C_1-C_4$ alkanoyl, C_1-C_4 alkyl, CF_3 , 20 or OCF3; or
 - R₆, R₇, and the nitrogen to which they are attached form a morpholinyl, thiomorpholinyl, piperidinyl, pyrrolidinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C₁-C₄ alkyl, C₁-C₄ alkoxy, hydroxy, hydroxy C₁-C₄ alkyl, or halogen.

Embodiment 191. Compounds according to embodiment 190, wherein

30 R₆ is hydrogen; and

25

 R_7 is C_1 - C_6 alkyl or C_1 - C_6 alkanoyl, each of which is optionally substituted with 1, 2, or 3 groups that are independently

 NH_2 , $NH(C_1-C_6 \text{ alkyl})$, $N(C_1-C_6 \text{ alkyl})$ $(C_1-C_6 \text{ alkyl})$, OH, SH, cyclopropyl, or C_1-C_4 alkoxy.

Embodiment 192. Compounds according to embodiment 5 191, wherein

 R_7 is C_1 - C_6 alkanoyl optionally substituted with 1, 2, or 3 groups that are independently OH, cyclopropyl, or NH_2 .

Embodiment 193. Compounds according to embodiment 10 178, wherein

Xa is hydrogen;

30

 X_b , X_c , or X_d is $-C(0)NR_6R_7$, $-(C_1-C_6$ alkyl)- $C(0)NR_6R_7$, NR_6R_7 , NR_6R_7 - $(C_1-C_6$ alkyl)- or $-CO_2-(C_1-C_6)$ alkyl; wherein

 R_6 and R_7 are independently at each occurrence H, C_1 - C_6 15 alkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkoxy C_1 - C_6 alkyl, C_1 - C_6 alkoxycarbonyl, OH, C_1 - C_6 hydroxyalkyl, - $(C_1$ - $C_4)$ alkyl-CO₂-alkyl, pyridyl C₁-C₆ alkyl, C₁-C₆ alkanoyl, benzyl, phenyl C₁-C₆ alkoxy, or phenyl C₁-C₆ alkanoyl, wherein each of the above is unsubstituted or substituted with 1, 2, or 3 groups that are 20 independently, halogen, $C_3 - C_6$ cycloalkyl, $C_1 - C_6$ alkoxy, piperidinyl C₁-C₆ alkyl, morpholinyl C₁-C₆ alkyl, piperazinyl C₁-C₆ alkyl, OH, NH₂, NH(alkyl), N(alkyl)(alkyl), $-O-C_1-C_4$ alkanoyl, C_1-C_4 alkyl, CF_3 , 25 or OCF₃; or

 R_6 , R_7 , and the nitrogen to which they are attached form a morpholinyl, piperidinyl, pyrrolidinyl, or piperazinyl ring which is optionally substituted with 1 or 2 groups that are independently C_1 - C_4 alkyl, C_1 - C_4 alkoxy, hydroxy, hydroxy C_1 - C_4 alkyl, or halogen; and

Xe is hydrogen, methyl, C1-C2 alkoxy, or halogen.

Embodiment 194. Compounds according to embodiment 193, wherein

 X_b is NR_6R_7 , or NR_6R_7 -(C_1 - C_6 alkyl)-, $-C(O)NR_6R_7$ or $-CO_2$ -(C_1 - C_6) alkyl; wherein

5 R₆ is hydrogen or C₁-C₄ alkyl;

 R_7 is OH, C_1 - C_6 alkyl or C_1 - C_6 alkanoyl, wherein the alkyl and alkanoyl groups substituted with 1, 2, or 3 groups that are independently NH_2 , $NH(C_1$ - C_6 alkyl), $N(C_1$ - C_6 alkyl) (C_1 - C_6 alkyl), C_3 - C_6 cycloalkyl, OH, or C_1 - C_4 alkoxy.

10

20

Embodiment 195. Compounds according to embodiment 180, wherein

Xa is halogen;

 X_b is NR_6R_7 , NR_6R_7 -(C_1 - C_6 alkyl)-, $-C(0)NR_6R_7$, or $-CO_2$ -(C_1 15 C_6)alkyl;

 X_c is NR_6R_7 , NR_6R_7 -(C_1 - C_6 alkyl)-, -C(0) NR_6R_7 , halogen, -CO₂-(C_1 - C_6) alkyl, NH_2 , $NH(C_1$ - C_6 alkyl), $N(C_1$ - C_6 alkyl)(C_1 - C_6 alkyl), -SO₂ NH_2 , -SO₂ $NH(C_1$ - C_6 alkyl), -SO₂ $N(C_1$ - C_6 alkyl)(C_1 - C_6 alkyl), or piperazinyl, wherein the piperazinyl group is optionally substituted with 1 or 2 groups that are independently C_1 - C_4 alkyl, C_1 - C_4 alkoxy, hydroxy, hydroxy C_1 - C_4 alkyl, or halogen;

X_d is hydrogen;

 X_e is H, methyl, NH₂, NH(C₁-C₆ alkyl) or N(C₁-C₆ alkyl)(C₁-C₆ 25 alkyl).

Embodiment 196. Compounds according to embodiment 178, wherein

 X_1 , X_2 , X_a , X_b , X_c , X_d , and X_e are independently selected from H, OH, halogen, CF_3 , alkyl, OCF_3 , pyridyl, pyridazinyl, pyrimidyl, pyrazinyl, thienyl, furyl, pyrrolyl, piperidinyl, piperazinyl, or C_3 - C_7 cycloalkyl, wherein each of the above is optionally substituted with $-NR_6R_7$,

10

15

20

25

 $-C(0)NR_6R_7$, $NR_6R_7-(C_1-C_6 \text{ alkyl})-$, $C_1-C_6 \text{ alkyl}$, $C_1-C_6 \text{ alkoxy}$, or halogen.

Embodiment 197. Compounds according to embodiment 5 196, wherein at least three of X_1 , X_2 , X_a , X_b , X_c , X_d , and Xe are hydrogen.

In another aspect, the invention provides pharmaceutical least one compositions comprising at pharmaceutically acceptable carrier, solvent, adjuvant or excipient and a compound or salt of formula I, embodiment 118, or embodiment 181. .

invention further The provides pharmaceutical compositions at least one pharmaceutically comprising acceptable carrier, solvent, adjuvant orexcipient and compounds according to any of the preceding embodiments.

As noted above, the invention encompasses methods of treating a TNF mediated disorder, a p38 kinase mediated disorder, inflammation and/or arthritis in a subject, the method comprising treating a subject having or susceptible to such disorder or condition with a therapeutically-effective amount of a compound of formula I.

More specifically, the invention provides methods for treating or preventing inflammation; arthritis, rheumatoid arthritis, spondylarthropathies, gouty arthritis. osteoarthritis, systemic lupus erthematosus, juvenile arthritis, and other arthritic conditions; neuroinflammation; allergy, Th2 mediated diseases; pain, neuropathic pain; fever; pulmonary disorders, lung inflammation, adult respiratory 30 distress syndrome, pulmonary sarcoisosis, asthma, silicosis, inflammatory disease, pulmonary and obstructive pulmonary disease (COPD); cardiovascular disease, arteriosclerosis, myocardial infarction (including post-

myocardial infarction indications), thrombosis, congestive heart failure, cardiac reperfusion injury, as well complications associated with hypertension and/or failure such as vascular organ damage, restenosis: 5 cardiomyopathy; stroke including ischemic and hemorrhagic stroke; reperfusion injury; renal reperfusion injury; ischemia including stroke and brain ischemia, and ischemia resulting from cardiac/coronary bypass; neurotrauma and brain trauma including closed head injury; brain edema; neurodegenerative liver disease and nephritis; gastrointestinal 10 disorders: conditions, inflammatory bowel disease, Crohn's gastritis, irritable bowel syndrome, ulcerative colitis; gastric ulcers; ophthalmic diseases, ulcerative diseases, retinitis, retinopathies, uveitis, ocular photophobia, acute injury to the eye tissue and ocular traumas such as post-15 traumatic glaucoma, traumatic optic neuropathy, and central retinal artery occlusion (CRAO); periodontal disease; ophthalmological conditions, retinitis, retinopathies (including diabetic retinopathy), uveitis, ocular photophobia, 20 nonglaucomatous optic nerve atrophy, and age related macular (including ARMD-atrophic form), corneal degeneration (ARMD) ocular neovascularization, rejection, retinal neovascularization, neovascularization following injury or retrolental fibroplasias, neovascular glaucoma; infection, 25 glaucoma including primary open angle glaucoma (POAG), juvenile onset primary open-angle glaucoma, angle-closure glaucoma, pseudoexfoliative glaucoma, anterior ischemic optic neuropathy (AION), ocular hypertension, Reiger's syndrome, normal tension glaucoma, neovascular glaucoma, ocular 30 inflammation and corticosteroid-induced glaucoma; diabetes; diabetic nephropathy; skin-related conditions, psoriasis, eczema, burns, dermatitis, keloid formation, scar tissue formation, angiogenic disorders; viral and bacterial

infections, sepsis, septic shock, gram negative sepsis, malaria, meningitis, HIV infection, opportunistic infections, cachexia secondary to infection or malignancy, secondary to acquired immune deficiency syndrome (AIDS), AIDS, ARC (AIDS related complex), pneumonia, herpes virus; myalgias due to infection; influenza; endotoxic shock; toxic shock syndrome; autoimmune disease, graft vs. host reaction and allograft rejections; treatment of bone resorption diseases, osteoporosis; multiple sclerosis; disorders of the female 10 reproductive system, endometriosis; hemaginomas, infantile hemagionmas, angiofibroma of the nasopharynx, avascular necrosis of bone; benign and malignant tumors/neoplasia, cancer, brain cancer, cancer, colorectal bone call-derived epithelial neoplasia (epithelial carcinoma), 15 basal cell carcinoma, adenocarcinoma, gastrointestinal cancer, lip cancer, mouth cancer, esophageal cancer, small bowel cancer, stomach cancer, colon cancer, liver cancer, bladder cancer, pancreas cancer, ovarian cancer, cervical cancer, lung cancer, breast cancer, skin cancer, squamus cell and/or basal cell cancers, prostate cancer, renal cell carcinoma, and other 20 known cancers that affect epithelial cells throughout the body; leukemia; lymphoma; systemic lupus erthrematosis (SLE); angiogenesis including neoplasia; metastasis; central nervous system disorders, central nervous system disorders having an inflammatory or apoptotic component, Alzheimer's disease, 25 Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, spinal cord injury, and peripheral neuropathy; Canine B-Cell Lymphoma. Compounds of the invention are also useful for preventing the production or expression 30 cyclooxygenase-2, or cyclooxygenase-2 activity.

In this aspect, the invention encompasses methods of treating a p38 kinase or TNF-alpha mediated disorder comprising administering to a patient in need thereof a

therapeutically effective amount of compounds or salts according to embodiment 1, 118, or 181 and at least one pharmaceutically acceptable carrier, adjuvant, solvent or excipient.

5 Representative compounds of the invention are:

3-(3-fluorobenzyl)-6-[(4-fluorobenzyl)oxy]-5-iodopyrimidin-4(3H)-one	O T O T F
5-bromo-3-(3-fluorobenzyl)-6-[(4-fluorobenzyl)oxy]pyrimidin-4(3H)-one	
4-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N,3-dimethylbenzamide	CI N CH ₃ CH ₃ CH ₃ CH ₃ CH ₃ CH ₃
5-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]methyl}-N,N-dimethylpyrazine-2-carboxamide	N O Br O N N F
N-[5-bromo-1-(3-fluorobenzyl)-6-oxo-1,6-dihydropyrimidin-4-yl]-2,4-difluorobenzamide	F N N O F

Other representative compounds of the invention are

3-(2-bromobenzyl)-5-[(2-bromobenzyl)oxy]pyrimidin-4(3H)-one; 3-benzyl-5-bromo-6-(2-phenylethyl)pyrimidin-4(3H)-one; 3-benzyl-5-bromo-6-(3-phenylpropyl)pyrimidin-4(3H)-one; 3-benzyl-5-bromo-6-[(2,6-dichlorobenzyl)oxy]pyrimidin-4(3H)-

3-benzyl-5-bromo-6-[(2,6-dichlorobenzyl)oxy]pyrimidin-4(3H) one;

3-benzyl-5-bromo-6-[(2-chlorobenzyl)oxy]pyrimidin-4(3H)-one; 3-benzyl-5-bromo-6-[(5-chlorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;

```
3-benzyl-5-bromo-6-[(4-chlorobenzyl)oxy]pyrimidin-4(3H)-one;
    3-benzyl-5-bromo-6-{[2-
(trifluoromethyl)benzyl]oxy}pyrimidin-4(3H)-one;
    3-benzyl-5-methyl-6-(2-phenylethyl)pyrimidin-4(3H)-one;
    3-benzyl-5-methyl-6-(3-phenylpropyl)pyrimidin-4(3H)-one;
    3-benzyl-6-(benzyloxy)-5-(hydroxymethyl)pyrimidin-4(3H)-one;
    3-benzyl-6-(benzyloxy)-1,5-dibromo-2-methylpyrimidin-4(3H)-
one;
    3-benzyl-6-(benzyloxy)-1,5-dibromopyrimidin-4(3H)-one;
    3-benzyl-6-(benzyloxy)-5-bromopyrimidin-4(3H)-one;
    3-benzyl-6-(benzyloxy)-5-chloropyrimidin-4(3H)-one;
    3-benzyl-6-(benzyloxy)-5-methylpyrimidin-4(3H)-one;
    3-benzyl-6-(benzyloxy)-2-methylpyrimidin-4(3H)-one;
    3-benzyl-6-(benzyloxy)pyrimidin-4(3H)-one;
    3-benzyl-6-(benzylthio)-5-bromopyrimidin-4(3H)-one;
    3-benzyl-6-(benzylthio)-5-methylpyrimidin-4(3H)-one;
    3-benzyl-6-(benzylthio)pyrimidin-4(3H)-one;
    3-benzyl-6-[(2,6-dichlorobenzyl)oxy]pyrimidin-4(3H)-one;
    3-benzyl-6-[(2-chlorobenzyl)oxy]pyrimidin-4(3H)-one;
    3-benzyl-6-[(3-chlorobenzyl)oxy]-2-methylpyrimidin-4(3H)-
one;
    3-benzyl-6-[(3-chlorobenzyl)oxy]pyrimidin-4(3H)-one;
    3-benzyl-6-hydroxypyrimidin-4(3H)-one;
    5-acetyl-6-hydroxy-2-methyl-1-[choro]phenylpyrimidin-4(3H)-
one;
    5-benzoyl-2-(benzyloxy)-3-methylpyrimidin-4(3H)-one;
    5-benzyl-2-(benzyloxy)-3-methylpyrimidin-4(3H)-one;
    5-bromo-3-(5-chlorobenzyl)-6-[(4-chlorobenzyl)oxy]pyrimidin-
4(3H)-one;
    5-bromo-3-(4-chlorobenzyl)-6-[(4-chlorobenzyl)oxy]pyrimidin-
4(3H)-one;
    5-bromo-3-(4-fluorobenzyl)-6-[(4-fluorobenzyl)oxy]pyrimidin-
4(3H)-one;
    5-bromo-3-(4-methoxybenzyl)-6-phenoxypyrimidin-4(3H)-one;
    5-bromo-3-(4-methylbenzyl)-6-[(4-methylbenzyl)oxy]pyrimidin-
4(3H)-one;
    5-bromo-6-[(4-chlorobenzyl)oxy]-3-(2-phenylethyl)pyrimidin-
4(3H)-one;
    5-bromo-6-[(4-chlorobenzyl)oxy]-3-(4-fluorobenzyl)pyrimidin-
4 (3H) - one:
    5-bromo-6-[(4-chlorobenzyl)oxy]-3-(4-
methoxybenzyl)pyrimidin-4(3H)-one;
    5-bromo-6-[(4-chlorobenzyl)oxy]-3-[2-
(phenylthio) ethyl] pyrimidin-4(3H) -one;
    5-bromo-6-[(4-fluorobenzyl)oxy]-3-(3-phenylpropyl)pyrimidin-
4 (3H) - one;
    5-bromo-6-hydroxy-3-(4-hydroxybenzyl)pyrimidin-4(3H)-one;
    6-(benzyloxy)-3-(2-fluorobenzyl)pyrimidin-4(3H)-one;
    6-(benzyloxy)-3-(3-fluorobenzyl)pyrimidin-4(3H)-one;
```

```
6-(benzyloxy)-3-(4-bromobenzyl)pyrimidin-4(3H)-one;
     6-(benzyloxy)-3-(4-chlorobenzyl)pyrimidin-4(3H)-one;
     6-(benzyloxy)-3-(4-fluorobenzyl)pyrimidin-4(3H)-one;
     6-(benzyloxy)-3-[6-(benzyloxy)benzyl]-5-bromopyrimidin-
4 (3H) -one;
    6-(benzyloxy)-5-bromo-3-(2-thien-2-ylethyl)pyrimidin-4(3H)-
one;
     6-(benzyloxy)-5-bromo-3-(4-fluorobenzyl)pyrimidin-4(3H)-one;
     6-(benzyloxy)-5-bromo-3-(4-tert-butylbenzyl)pyrimidin-4(3H)-
one;
     6-(benzyloxy)-5-bromo-3-(piperidin-3-ylmethyl)pyrimidin-
4(3H)-one hydrochloride;
     6-(benzyloxy)-5-bromo-3-(piperidin-4-ylmethyl)pyrimidin-
4(3H)-one hydrochloride;
     6-(benzyloxy)-5-bromo-3-[4-(methylthio)benzyl]pyrimidin-
4 (3H) -one;
     6-(benzyloxy)-5-bromo-3-[4-
(trifluoromethoxy) benzyl] pyrimidin-4 (3H) -one;
     6-(benzyloxy)-5-bromo-3-ethylpyrimidin-4(3H)-one;
     6-(benzyloxy)-5-bromo-3-methylpyrimidin-4(3H)-one;
     6-(benzyloxy)-5-bromo-3-methylpyrimidin-4(3H)-one
hydrobromide;
     6-amino-3-benzylpyrimidin-4(3H)-one;
     1-bromo-3-(2-chloro-6-fluorobenzyl)-5-methylpyrimidin-4(3H)-
one;
     1-benzyl-4-(benzyloxy)-6-oxo-1,6-dihydropyrimidine-5-
carbaldehyde;
     1-benzyl-4-chloro-6-oxo-1,6-dihydropyrimidine-5-
carbaldehyde;
     1-benzyl-4-hydroxy-6-oxo-1,6-dihydropyrimidine-5-
carbaldehyde;
     1-benzyl-6-oxo-1,6-dihydropyrimidin-4-yl methanesulfonate;
     1-benzyl-6-oxo-1,6-dihydropyrimidin-4-yl
methyl (phenyl) carbamate;
     1-benzyl-6-oxo-4-phenoxy-1,6-dihydropyrimidine-5-
carbaldehyde:
     1-benzyl-5-bromo-6-oxo-1,6-dihydropyrimidin-4-yl
methyl(phenyl)carbamate; or
     2-(benzyloxy)-1-methyl-6-oxo-1,6-dihydropyrimidine-5-
carbonitrile.
        Embodiment 203.
                            Compounds according to embodiment 1
   embodiment 118, or embodiment 181, which is
     3-(2,6-dichlorophenyl)-6-hydroxy-2-methylpyrimidin-4(1H)-one;
```

3-(3-fluorobenzyl)-6-hydroxy-2-methylpyrimidin-4(3H)-one;

3-(3-fluorobenzyl)-6-hydroxypyrimidin-4(3H)-one;

```
3-benzyl-5-bromo-6-(phenylethynyl)pyrimidin-4(3H)-one;
    3-benzyl-5-bromo-6-[(4-methylbenzyl)oxy]pyrimidin-4(3H)-one;
    3-Benzyl-5-bromo-6-[2,6-(dichlorobenzyl)oxy]pyrimidin-4(3H)-
one;
    3-benzyl-5-bromo-6-hydroxypyrimidin-4(3H)-one;
    3-benzyl-6-(benzyloxy)-3-ethylpyrimidin-4(3H)-one;
    3-benzyl-6-(benzyloxy)-5-iodopyrimidin-4(3H)-one;
    3-benzyl-6-(benzyloxy)-3-vinylpyrimidin-4(3H)-one;
    3-Benzyl-6-[2,6-(dichlorobenzyl)oxy]pyrimidin-4(3H)-one;
    3-Benzyl-6-[benzylthio]-5-bromopyrimidin-4(3H)-one;
    3-benzyl-6-hydroxy-2-methylpyrimidin-4(3H)-one:
    5-acetyl-3-(2,6-dichlorophenyl)-6-hydroxy-6-methylpyrimidin-
4 (3H) -one;
    5-acetyl-3-(2-chlorophenyl)-4-hydroxy-2-methylpyrimidin-4(3H)-
one;
    5-acetyl-6-(benzyloxy)-3-(2-chlorophenyl)-2-methylpyrimidin-
4 (3H) -one;
    5-bromo-3-(3-fluorobenzyl)-6-(2-phenylethyl)pyrimidin-4(3H)-
one;
    5-bromo-3-(3-fluorobenzyl)-6-(phenylethynyl)pyrimidin-4(3H)-
one;
    5-bromo-3-(3-fluorobenzyl)-6-hydroxy-2-methylpyrimidin-4(3H)-
one;
    5-bromo-3-(3-fluorobenzyl)-6-hydroxypyrimidin-4(3H)-one;
    5-bromo-3-(3-fluorobenzyl)-2-methyl-6-(2-phenylethyl)pyrimidin-
4(3H)-one;
    5-bromo-3-(3-fluorobenzyl)-6-methyl-6-(phenylethynyl)pyrimidin-
4(3H)-one;
    6-(benzylamino)-3-(3-fluorobenzyl)pyrimidin-4(3H)-one;
    6-(benzylamino)-5-bromo-3-(3-fluorobenzyl)pyrimidin-4(3H)-one;
    6-(benzyloxy)-3-(2,6-dichlorophenyl)-2-methylpyrimidin-4(3H)-
one;
    6-(benzyloxy)-3-(3-fluorobenzyl)-5-
[(trimethylsilyl)ethynyl]pyrimidin-4(3H)-one;
    6-(benzyloxy)-3-(3-fluorobenzyl)-5-iodopyrimidin-4(3H)-one;
    6-(benzyloxy)-3-(4-methylbenzyl)pyrimidin-4(3H)-one;
    6-(benzyloxy)-3-(4-tert-butylbenzyl)pyrimidin-4(3H)-one;
    6-(benzyloxy)-3-[4-(trifluoromethoxy)benzyl]pyrimidin-4(3H)-
one:
    6-(benzyloxy)-3-[4-(trifluoromethyl)benzyl]pyrimidin-4(3H)-one;
    6-(benzyloxy)-5-bromo-3-[2-(trifluoromethyl)benzyl]pyrimidin-
4(3H)-one;
    6-(benzyloxy)-5-bromo-3-[3-(trifluoromethyl)benzyl]pyrimidin-
4 (3H) -one;
    6-(benzyloxy)-5-bromo-3-[4-(trifluoromethyl)benzyl]pyrimidin-
4 (3H) -one;
    6-(benzyloxy)-5-bromopyrimidin-4(3H)-one;
    6-(benzyloxy)-3-ethynyl-3-(3-fluorobenzyl)pyrimidin-4(3H)-one;
    6-[(2,6-dichlorobenzyl)oxy]pyrimidine-4-one;
```

```
1-benzyl-2-methyl-6-oxo-1,6-dihydropyrimidin-4-yl 4-
bromobenzenesulfonate;
    1-benzyl-5-bromo-6-oxo-1,6-dihydropyrimidin-4-yl
trifluoromethanesulfonate;
    4-{[4-(benzyloxy)-6-oxopyrimidin-1(6H)-yl]methyl}benzonitrile;
    5-bromo-1-(3-fluorobenzyl)-6-oxo-1,6-dihydropyrimidin-4-yl
trifluoromethanesulfonate;
    5-bromo-1-(3-fluorobenzyl)-2-methyl-6-oxo-1,6-dihydropyrimidin-
4-yl trifluoromethanesulfonate;
    4-\{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-yl]methyl\}-2-
methylbenzoate; or
    4-\{[4-(benzyloxy)-6-oxopyrimidin-1(6H)-yl]methyl\}-2-
methylbenzoate.
        Still other representative compounds of the invention are
    3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-
1(6H)-yl]-4-methylbenzamide;
    5-bromo-3-(2,4-difluorobenzyl)-6-[(2,4-
difluorobenzyl) oxy] pyrimidin-4(3H) -one;
    5-bromo-3-(2,6-dichlorophenyl)-6-[(2,4-difluorobenzyl)oxy]-2-
methylpyrimidin-4(3H)-one;
    5-bromo-3-(2,6-dichlorophenyl)-6-[(4-fluorobenzyl)oxy]-2-
methylpyrimidin-4(3H)-one;
    5-bromo-3-(2,6-dimethylphenyl)-6-[(4-fluorobenzyl)oxy]-2-
methylpyrimidin-4(3H)-one;
    5-bromo-3-(3-fluorobenzyl)-6-[(3-methylbenzyl)oxy]pyrimidin-4-
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2-
fluorobenzyl)pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2-methoxy-2-
methylphenyl)-2-methylpyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(3-
fluorobenzyl)pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(3-
methoxybenzyl)pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-(pyridin-3-
ylmethyl)pyrimidin-4(3H)-one;
    5-bromo-6-[(5-chlorobenzyl)oxy]-3-(3-fluorobenzyl)pyrimidin-
4(3H)-one;
    5-bromo-6-[(4-fluorobenzyl)oxy]-3-(pyridin-3-
ylmethyl)pyrimidin-4(3H)-one;
    5-bromo-6-[(4-fluorobenzyl)oxy]-3-(pyridin-4-
ylmethyl)pyrimidin-4(3H)-one;
    5-bromo-6-[(4-fluorobenzyl)oxy]-2-methyl-3-(pyrimidin-4-
ylmethyl)pyrimidin-4(3H)-one;
     5-bromo-6-[(4-fluorobenzyl)oxy]-2-methyl-3-(pyridin-3-
```

```
ylmethyl)pyrimidin-4(3H)-one;
    5-bromo-6-[(4-fluorobenzyl)oxy]-2-methyl-3-(pyridin-4-
ylmethyl)pyrimidin-4(3H)-one; or
    4-\{[5-bromo-4-[(4-fluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-
yl]methyl}benzonitrile.
        Other representative compounds of the invention are
    3-(1-acetyl-1H-benzimidazol-5-yl)-5-chloro-6-[(2,4-
difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
    3-(1-acetyl-1H-imidazol-4-yl)-5-chloro-6-[(2,4-
difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
    3-(1-acetyl-1H-indol-5-yl)-5-chloro-6-[(2,4-
difluorobenzyl)oxy] -2-methylpyrimidin-4(3H)-one;
    3-(1-acetyl-1H-pyrazol-4-yl)-5-chloro-6-[(2,4-
difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
    3-(1-acetyl-1H-pyrrol-3-yl)-5-chloro-6-[(2,4-
difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
    3-(1-acetyl-2,3-dihydro-1H-indol-5-yl)-5-chloro-6-[(2,4-
difluorobenzyl) oxy] -2-methylpyrimidin-4(3H) -one;
    3-(1-acetyl-3-glycoloyl-2,3-dihydro-1H-benzimidazol-5-yl)-5-
chloro-6-[(2,4-difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
    3-(1H-indazol-5-yl)-6-(1H-indazol-5-ylamino)-2-
methylpyrimidin-4(3H)-one;
    3-(2,6-difluoro-phenyl)-6-methoxy-2-methyl-1-phenethyl-1H-
pyrimidin-4-one;
    3-(2-acetyl-1,2,3,4-tetrahydroisoquinolin-6-yl)-5-chloro-6-
[(2,4-difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
    3-(2-acetyl-1,2,3,4-tetrahydroisoquinolin-7-yl)-5-chloro-6-
[(2,4-difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
    3-(2-acetyl-2,3-dihydro-1H-isoindol-5-yl)-5-chloro-6-[(2,4-
difluorobenzyl) oxy] -2-methylpyrimidin-4(3H) -one;
    3-(2-Chloro-4-hydroxy-phenyl)-6-(2,4-difluoro-benzyloxy)-2-
methyl-1H-pyrimidin-4-one;
    3-(3-{[Bis-(2-hydroxy-ethyl)-amino]-methyl}-benzyl)-5-bromo-
6-(2,4-difluoro-benzyloxy)-2-methyl-1H-pyrimidin-4-one;
    3-(3-acetyl-1-glycoloyl-2,3-dihydro-1H-benzimidazol-5-yl)-5-
chloro-6-[(2,4-difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
    3-(3-Aminomethyl-2-fluoro-benzyl)-5-bromo-6-(2,4-difluoro-
benzyloxy) - 3H-pyrimidin-4-one;
    3-(3-Aminomethyl-benzyl)-5-bromo-6-(2,4-difluoro-benzyloxy)-
2-methyl-3H-pyrimidin-4-one;
    3-(3-Aminomethyl-benzyl)-6-benzyloxy-5-bromo-3H-pyrimidin-4-
    3-(3-Fluoro-benzyl)-6-(4-fluoro-benzyloxy)-5-iodo-1H-
pyrimidin-4-one;
    3-(3-fluorobenzyl)-6-(phenylethynyl)pyrimidin-4(3H)-one;
```

```
3-(3-fluorobenzyl)-6-[(4-fluorobenzyl)oxy]-5-methylpyrimidin-
4(3H)-one;
    3-(4-{[Bis-(2-hydroxy-ethyl)-amino]-methyl}-benzyl)-5-bromo-
6-(2,4-difluoro-benzyloxy)-2-methyl-3H-pyrimidin-4-one;
    3-(4-Aminomethyl-benzyl)-5-bromo-6-(2,4-difluoro-benzyloxy)-
2-methyl-3H-pyrimidin-4-one;
    3-(4-Aminomethyl-benzyl)-6-benzyloxy-5-bromo-3H-pyrimidin-4-
    3-(4-Bromo-2,6-difluoro-phenyl)-6-(2,4-difluoro-benzyloxy)-2-
methyl-1H-pyrimidin-4-one;
    3-(4-bromo-2-methylphenyl)-6-[(2,4-difluorobenzyl)oxy]-2-
methylpyrimidin-4(3H)-one;
    3-(4-Chloro-benzyl)-3-[3-(4-chloro-phenyl)-[1,2,4]oxadiazol-
5-yl]-3H-pyrimidin-4-one;
    3-(4-fluorobenzyl)-6-[(4-fluorobenzyl)oxy]pyrimidin-4(3H)-
one;
    3-(4-methoxybenzyl)-6-phenoxypyrimidin-4(3H)-one;
    3-(biphenyl-4-ylmethyl)-5-bromo-6-[(4-
fluorobenzyl) oxy] pyrimidin-4(3H) -one;
    1,3-diacetyl-5-{[5-chloro-6-[(2,4-difluorobenzyl)oxy]-4-
oxopyrimidin-3(3H)-yl]methyl}-1,3-dihydro-2H-benzimidazol-2-one;
     3,5-dibenzyl-6-hydroxy-2-methylpyrimidin-4(3H)-one;
    3-[(1-acetyl-1H-indol-5-yl)methyl]-5-chloro-6-[(2,4-
difluorobenzyl) oxy] pyrimidin-4(3H) -one;
    3-[(1-acetyl-2,3-dihydro-1H-benzimidazol-5-yl)methyl]-5-
chloro-6-[(2,4-difluorobenzyl)oxy]pyrimidin-4(3H)-one;
    3-[(1-acetyl-2,3-dihydro-1H-indol-5-yl)methyl]-5-chloro-6-
[(2,4-difluorobenzyl)oxy]pyrimidin-4(3H)-one;
    3-[(1-acetyl-3-glycoloyl-2,3-dihydro-1H-benzimidazol-5-
yl)methyl]-5-chloro-6-[(2,4-difluorobenzyl)oxy]pyrimidin-4(3H)-
one:
    3-[(2-acetyl-1,2,3,4-tetrahydroisoquinolin-5-yl)methyl]-5-
chloro-6-[(2,4-difluorobenzyl)oxy]pyrimidin-4(3H)-one;
    3-[(2-acetyl-1,2,3,4-tetrahydroisoquinolin-6-yl)methyl]-5-
chloro-6-[(2,4-difluorobenzyl)oxy]pyrimidin-4(3H)-one;
    3-[(2-acetyl-2,3-dihydro-1H-isoindol-5-yl)methyl]-5-chloro-6-
[(2,4-difluorobenzyl)oxy]pyrimidin-4(3H)-one;
    3-[(3-acetyl-1-glycoloyl-2,3-dihydro-1H-benzimidazol-5-
yl)methyl]-5-chloro-6-[(2,4-difluorobenzyl)oxy]pyrimidin-4(3H)-
one;
    3-[(3-acetyl-2,3-dihydro-1H-benzimidazol-5-yl)methyl]-5-
chloro-6-[(2,4-difluorobenzyl)oxy]pyrimidin-4(3H)-one;
    3-[1,3-bis(2-hydroxy-2-methylpropanoyl)-2,3-dihydro-1H-
benzimidazol-5-yl]-5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-
methylpyrimidin-4(3H)-one;
    3-[1,3-bis(3-hydroxy-5-methylbutanoyl)-2,3-dihydro-1H-
benzimidazol-5-yl]-5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-
methylpyrimidin-4(3H)-one;
```

3-[1,3-bis(3-hydroxypropanoyl)-2,3-dihydro-1H-benzimidazol-5-

```
yl]-5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-
one;
    3-[1,3-bis(methylsulfonyl)-2,3-dihydro-1H-benzimidazol-5-yl]-
5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
    3-[1,3-bis(N-methylqlycyl)-2,3-dihydro-1H-benzimidazol-5-yl]-
5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
    3-[1-acetyl-3-(2-hydroxy-2-methylpropanoyl)-2,3-dihydro-1H-
benzimidazol-5-yl]-5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-
methylpyrimidin-4(3H)-one;
    3-[1-acetyl-3-(3-hydroxy-5-methylbutanoyl)-2,3-dihydro-1H-
benzimidazol-5-yl]-5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-
methylpyrimidin-4(3H)-one;
    3-[1-acetyl-3-(3-hydroxypropanoyl)-2,3-dihydro-1H-
benzimidazol-5-yl]-5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-
methylpyrimidin-4(3H)-one;
    3-[1-acetyl-3-(methylsulfonyl)-2,3-dihydro-1H-benzimidazol-5-
yl]-5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-
one;
    3-[1-acetyl-3-(N-methylglycyl)-2,3-dihydro-1H-benzimidazol-5-
yl]-5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-
    3-[2-(aminomethyl)benzyl]-5-bromo-6-[(2,4-
difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
    3-[2-(aminomethyl)benzyl]-5-bromo-6-[(2,4-
difluorobenzyl)oxy]pyrimidin-4(3H)-one;
    3-[2-(aminomethyl)benzyl]-6-(benzyloxy)-5-bromopyrimidin-
4(3H)-one;
    3-[2-chloro-5-(hydroxymethyl)phenyl]-6-[(2,4-
difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
    3-[3-(2-aminoethyl)benzyl]-5-bromo-6-[(2,4-
difluorobenzyl)oxy]pyrimidin-4(3H)-one trifluoroacetate;
    3-[3-(aminomethyl)benzyl]-5-bromo-6-[(2,4-
difluorobenzyl)oxy]pyrimidin-4(3H)-one trifluoroacetate;
     3-[3-(aminomethyl)benzyl]-5-bromo-6-[(4-
fluorobenzyl)oxy]pyrimidin-4(3H)-one trifluoroacetate;
    3-[3-(aminomethyl)benzyl]-5-bromo-6-[(4-
fluorobenzyl)oxy]pyrimidin-4(3H)-one;
    3-[3-(aminomethyl)phenyl]-5-bromo-6-[(2,4-
difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
    3-[3-acetyl-3-(2-hydroxy-2-methylpropanoyl)-2,3-dihydro-1H-
benzimidazol-5-yl]-5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-
methylpyrimidin-4(3H)-one;
    3-[3-acetyl-3-(3-hydroxy-5-methylbutanoyl)-2,3-dihydro-1H-
benzimidazol-5-yl]-5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-
methylpyrimidin-4(3H)-one;
    3-[3-acetyl-3-(3-hydroxypropanoyl)-2,3-dihydro-1H-
benzimidazol-5-yl]-5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-
methylpyrimidin-4(3H)-one;
    3-[3-acetyl-3-(methylsulfonyl)-2,3-dihydro-1H-benzimidazol-5-
```

```
yl]-5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-
one;
    3-[3-acetyl-3-(N-methylqlycyl)-2,3-dihydro-1H-benzimidazol-5-
yl]-5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-
one;
    3-{[1,3-bis(2-hydroxy-2-methylpropanoy1)-2,3-dihydro-1H-
benzimidazol-5-yl]methyl}-5-chloro-6-[(2,4-
difluorobenzyl) oxy] pyrimidin-4(3H) -one;
     3-{[1,3-bis(3-hydroxy-3-methylbutanoyl)-2,3-dihydro-1H-
benzimidazol-5-yl]methyl}-5-chloro-6-[(2,4-
difluorobenzyl) oxy] pyrimidin-4(3H) -one;
     3-{[1,3-bis(3-hydroxypropanoy1)-2,3-dihydro-1H-benzimidazol-
5-yl]methyl}-5-chloro-6-[(2,4-difluorobenzyl)oxy]pyrimidin-4(3H)-
    3-{[1,3-bis(methylsulfonyl)-2,3-dihydro-1H-benzimidazol-5-
yl]methyl}-5-chloro-6-[(2,4-difluorobenzyl)oxy]pyrimidin-4(3H)-
one;
    3-{[1,3-bis(N-methylqlycyl)-2,3-dihydro-1H-benzimidazol-5-
yl]methyl}-5-chloro-6-[(2,4-difluorobenzyl)oxy]pyrimidin-4(3H)-
one:
    3-{[1-acetyl-3-(2-hydroxy-2-methylpropanoyl)-2,3-dihydro-1H-
benzimidazol-5-yl]methyl}-5-chloro-6-[(2,4-
difluorobenzyl) oxy] pyrimidin-4 (3H) -one;
     3-{[1-acetyl-3-(3-hydroxy-3-methylbutanoyl)-2,3-dihydro-1H-
benzimidazol-5-yl]methyl}-5-chloro-6-[(2,4-
difluorobenzyl) oxy] pyrimidin-4 (3H) -one;
     3-{[1-acetyl-3-(3-hydroxypropanoyl)-2,3-dihydro-1H-
benzimidazol-5-yl]methyl}-5-chloro-6-[(2,4-
difluorobenzyl)oxy]pyrimidin-4(3H)-one;
     3-{[1-acetyl-3-(methylsulfonyl)-2,3-dihydro-1H-benzimidazol-
5-yl]methyl}-5-chloro-6-[(2,4-difluorobenzyl)oxy]pyrimidin-4(3H)-
     3-{[1-acetyl-3-(N-methylqlycyl)-2,3-dihydro-1H-benzimidazol-
5-yl]methyl}-5-chloro-6-[(2,4-difluorobenzyl)oxy]pyrimidin-4(3H)-
one;
     3-{[3-acetyl-1-(2-hydroxy-2-methylpropanoyl)-2,3-dihydro-1H-
benzimidazol-5-yl]methyl}-5-chloro-6-[(2,4-
difluorobenzyl) oxy] pyrimidin-4 (3H) -one;
     3-{[3-acety1-1-(3-hydroxy-3-methylbutanoyl)-2,3-dihydro-1H-
benzimidazol-5-yl]methyl}-5-chloro-6-[(2,4-
difluorobenzyl) oxy] pyrimidin-4 (3H) -one;
     3-{[3-acetyl-1-(3-hydroxypropanoyl)-2,3-dihydro-1H-
benzimidazol-5-yl]methyl}-5-chloro-6-[(2,4-
difluorobenzyl)oxy]pyrimidin-4(3H)-one;
     3-{[3-acetyl-1-(methylsulfonyl)-2,3-dihydro-1H-benzimidazol-
5-yl]methyl}-5-chloro-6-[(2,4-difluorobenzyl)oxy]pyrimidin-4(3H)-
     3-{[3-acetyl-1-(N-methylglycyl)-2,3-dihydro-1H-benzimidazol-
```

5-yl]methyl}-5-chloro-6-[(2,4-difluorobenzyl)oxy]pyrimidin-4(3H)-

```
one;
    1-acetyl-5-{ [5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-
oxopyrimidin-3(3H)-yl]methyl}-1,3-dihydro-2H-benzimidazol-2-one;
    1-acetyl-5-{[5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-
oxopyrimidin-3(3H)-yl]methyl}-3-glycoloyl-1,3-dihydro-2H-
benzimidazol-2-one;
    1-acetyl-5-{ [5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-
oxopyrimidin-3(3H)-yl]methyl}-3-(2-hydroxy-2-methylpropanoyl)-
1,3-dihydro-2H-benzimidazol-2-one;
    1-acetyl-5-{ [5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-
oxopyrimidin-3(3H)-yl]methyl}-3-(N-methylglycyl)-1,3-dihydro-2H-
benzimidazol-2-one;
    1-acetyl-5-{ [5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-
oxopyrimidin-3(3H)-yl]methyl}-3-(3-hydroxypropanoyl)-1,3-dihydro-
2H-benzimidazol-2-one;
    1-acetyl-5-{ [5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-
oxopyrimidin-3(3H)-yl]methyl}-3-(3-hydroxy-3-methylbutanoyl)-1,3-
dihydro-2H-benzimidazol-2-one;
    1-acetyl-5-{[5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-
oxopyrimidin-3(3H)-yl]methyl}-3-(methylsulfonyl)-1,3-dihydro-2H-
benzimidazol-2-one;
    1-acetyl-6-\{[5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-
oxopyrimidin-3(3H)-yl]methyl}-1,3-dihydro-2H-benzimidazol-2-one;
    3-allyl-5-(2,4-difluorobenzyl)-6-[(2,4-difluorobenzyl)oxy]-2-
methylpyrimidin-4(3H)-one;
    3-allyl-5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-
methylpyrimidin-4(3H)-one;
    3-Allyl-5-chloro-6-(2,4-difluoro-benzyloxy)-2-methyl-3H-
pyrimidin-4-one;
    3-Benzenesulfonyl-6-benzyloxy-5-bromo-3H-pyrimidin-4-one;
    3-Benzo[1,3]dioxol-5-ylmethyl-5-bromo-6-(2,4-difluoro-
benzyloxy) - 3H-pyrimidin-4-one;
    3-benzyl-5-[(benzylamino)methyl]-6-(benzyloxy)pyrimidin-
4(3H)-one;
    3-Benzyl-5-bromo-6-(2,4-difluoro-benzyloxy)-2-methyl-1H-
pyrimidin-4-one;
    3-benzyl-5-bromo-2-methyl-6-{[2-
(trifluoromethyl)benzyl]oxy}pyrimidin-4(3H)-one;
    3-benzyl-6-(1-naphthylmethoxy)pyrimidin-4(3H)-one;
    3-benzyl-6-(benzyloxy)-5-{[(2-
cyclohexylethyl) amino] methyl }pyrimidin-4 (3H) -one;
    3-benzyl-6-(benzyloxy)-5-bromo-2-methylpyrimidin-4(3H)-one;
    3-benzyl-6-(benzylthio)-3,5-dibromopyrimidin-4(3H)-one;
    3-benzyl-6-[(4-methylbenzyl)oxy]pyrimidin-4(3H)-one;
    3-benzyl-6-benzyloxy-5-bromo-1H-pyrimidin-4-one;
    3-benzyl-6-benzyloxy-5-bromo-2-methyl-1H-pyrimidin-4-one;
    3-benzyl-6-benzyloxy-5-chloro-1H-pyrimidin-4-one;
    3-benzyl-6-phenoxypyrimidin-4(3H)-one;
    3-Benzyl-1-[5-(3,4-dichloro-benzylsulfanyl)-[1,3,4]oxadiazol-
```

```
2-yl]-3H-pyrimidin-4-one;
    3-cyclohexyl-6-[(2,4-difluorobenzyl)oxy]-3,6-
dimethylpyrimidin-4(3H)-one;
     5-benzyl-6-hydroxy-3-(2-phenylethyl)pyrimidin-4(3H)-one;
     5-bromo-3-(2,6-dichlorophenyl)-6-[(4-fluorophenyl)ethynyl]-2-
methylpyrimidin-4(3H)-one;
     5-bromo-3-(2,6-dichlorophenyl)-6-[2-(4-fluorophenyl)ethyl]-2-
methylpyrimidin-4(3H)-one;
     5-bromo-3-(2,6-difluoro-phenyl)-6-methoxy-2-methyl-1-(4-
methyl-benzyl)-3H-pyrimidin-4-one;
     5-bromo-3-(2,6-difluoro-phenyl)-6-methoxy-2-methyl-1-
phenethyl-1H-pyrimidin-4-one;
    5-bromo-3-(2,6-difluoro-phenyl)-6-methoxy-2-methyl-1-styryl-
1H-pyrimidin-4-one;
    5-bromo-3-(2,6-difluoro-phenyl)-6-methoxy-2-methyl-1-vinyl-
3H-pyrimidin-4-one;
     5-bromo-3-(2,6-dimethylphenyl)-2-methyl-6-[(2,4,6-
trifluorobenzyl)oxy]pyrimidin-4(3H)-one;
    5-bromo-3-(3,5-dibromo-2,6-difluoro-4-hydroxyphenyl)-6-[(2,4-
difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
     5-bromo-3-(3-fluorobenzyl)-6-(1-phenylethoxy)pyrimidin-4(3H)-
one;
     5-bromo-3-(3-fluoro-benzyl)-6-(2,3,4-trifluoro-benzyloxy)-3H-
pyrimidin-4-one;
     5-bromo-3-(3-fluoro-benzyl)-6-(2-hydroxymethyl-benzyloxy)-3H-
pyrimidin-4-one;
     5-Bromo-3-(3-fluoro-benzyl)-6-(3-isopropyl-phenyl)-3H-
pyrimidin-4-one;
     5-bromo-3-(3-fluoro-benzyl)-6-(3-methoxy-phenyl)-3H-
pyrimidin-4-one;
     5-bromo-3-(3-fluoro-benzyl)-6-(5-methyl-benzyloxy)-3H-
pyrimidin-4-one;
     5-Bromo-3-(3-fluoro-benzyl)-6-(3-trifluoromethyl-phenyl)-3H-
pyrimidin-4-one;
     5-bromo-3-(3-fluoro-benzyl)-6-(4-fluoro-benzyloxy)-3H-
pyrimidin-4-one;
     5-bromo-3-(3-fluoro-benzyl)-6-(4-fluoro-phenyl)-3H-pyrimidin-
4-one;
     5-bromo-3-(3-fluorobenzyl)-6-[(2-methylbenzyl)oxy]pyrimidin-
4 (3H) -one:
     5-bromo-3-(3-fluorobenzyl)-6-[(3,4,5-
trimethoxyphenyl) amino] pyrimidin-4 (3H) -one;
     5-bromo-3-(3-fluorobenzyl)-6-[(3-
fluorobenzyl) amino] pyrimidin-4(3H) -one;
     5-bromo-3-(3-fluorobenzyl)-6-[(3-fluorobenzyl)oxy]pyrimidin-
4(3H)-one;
     5-bromo-3-(3-fluorobenzyl)-6-[(3-methoxybenzyl)oxy]pyrimidin-
4(3H)-one;
     5-bromo-3-(3-fluorobenzyl)-6-[(5-methylbenzyl)oxy]pyrimidin-
```

```
4 (3H) -one;
    5-bromo-3-(3-fluorobenzyl)-6-[(4-methoxybenzyl)oxy]pyrimidin-
4 (3H) -one;
    5-bromo-3-(3-fluorobenzyl)-6-[(E)-2-(4-
fluorophenyl)vinyl]pyrimidin-4(3H)-one;
    5-bromo-3-(3-fluorobenzyl)-6-[4-(4-fluorophenyl)piperazin-1-
yl]pyrimidin-4(3H)-one;
    5-bromo-3-(3-fluorobenzyl)-6-{[2-
(hydroxymethyl) benzyl] oxy { pyrimidin-4 (3H) - one;
    5-bromo-3-(3-fluorobenzyl)-6-{[3-
(trifluoromethyl)benzyl]amino}pyrimidin-4(3H)-one;
    5-bromo-3-(3-fluorobenzyl)-6-{[4-
(trifluoromethyl)benzyl]oxy}pyrimidin-4(3H)-one;
    5-bromo-3-(3-fluorobenzyl)-6-{[4-fluoro-2-
(trifluoromethyl)benzyl]amino}pyrimidin-4(3H)-one;
    5-bromo-3-(3-fluoro-benzyl)-6-naphthalen-2-yl-3H-pyrimidin-4-
one;
    5-bromo-3-(3-fluoro-benzyl)-6-thiophen-3-yl-3H-pyrimidin-4-
one;
    5'-bromo-3'-(3-fluoro-benzyl)-6-methoxy-3'H-
[3,6']bipyrimidinyl-4'-one;
    5-bromo-3-(4-bromo-2,6-difluorophenyl)-6-[(2,4-
difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
    5-bromo-3-(4-fluoro-benzyl)-6-(4-fluoro-benzyloxy)-3H-
pyrimidin-4-one;
    5-bromo-3-(4-fluorobenzyl)-6-[(4-fluorobenzyl)amino]-2-
methylpyrimidin-4(3H)-one;
    5-bromo-3-(4-tert-butylbenzyl)-6-[(2,4-
difluorobenzyl) oxy] pyrimidin-4(3H) -one;
    5-bromo-3-(4-tert-butylbenzyl)-6-[(4-
fluorobenzyl)oxy]pyrimidin-4(3H)-one;
    5-bromo-3-(cyclohexylmethyl)-6-[(4-
fluorobenzyl)oxy]pyrimidin-4(3H)-one;
    5-bromo-3-(cyclopropylmethyl)-6-[(2,4-difluorobenzyl)oxy]-2-
methylpyrimidin-4(3H)-one;
    5-bromo-3-(cyclopropylmethyl)-6-[(4-
fluorobenzyl) oxy] pyrimidin-4(3H) -one;
    5-bromo-3-[2-chloro-5-(hydroxymethyl)phenyl]-6-[(2,4-
difluorobenzyl) oxy] -2-methylpyrimidin-4(3H) -one;
    5-bromo-3-\{[5-(chloromethyl)pyrazin-2-yl]methyl\}-6-[(2,4-
difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
    5-Bromo-6-(2,4-difluoro-benzyloxy)-3-(2,3-dihydro-1H-indol-5-
ylmethyl)-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-3-(2-methyl-4-methylamino-
pyrimidin-5-ylmethyl)-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-3-(3-dimethylaminomethyl-
benzyl)-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-3-(3-dimethylaminomethyl-
benzyl) -2-methyl-3H-pyrimidin-4-one;
```

```
5-bromo-6-(2,4-difluoro-benzyloxy)-3-(3-fluoro-benzyl)-3H-
pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-3-(3-hydroxymethyl-
benzyl)-2-methyl-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-3-(3-methoxy-benzyl)-3H-
pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-3-(5-methylaminomethyl-
benzyl) - 3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-3-(4-dimethylaminomethyl-
benzyl)-2-methyl-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-3-(4-dimethylaminomethyl-
benzyl)-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-3-(4-hydroxy-benzyl)-2-
methyl-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-3-(4-hydroxymethyl-
benzyl)-2-methyl-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-3-(4-methoxy-benzyl)-2-
methyl-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-3-[1-(2-hydroxy-acetyl)-
2,3-dihydro-1H-indol-5-ylmethyl]-2-methyl-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-3-[3-(isopropylamino-
methyl)-benzyl]-1H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-3-[3-(isopropylamino-
methyl)-benzyl]-2-methyl-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-3-[4-(1-hydroxy-1-methyl-
ethyl)-benzyl]-2-methyl-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-3-[4-(isopropylamino-
methyl)-benzyl]-2-methyl-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-3-{3-(2-hydroxy-
ethylamino)-methyl]-benzyl}-2-methyl-3H-pyrimidin-4-one;
    5-Bromo-6-(2,4-difluoro-benzyloxy)-2-methyl-3-(1H-pyrazol-3-
ylmethyl)-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-2-methyl-3-(3-morpholin-4-
ylmethyl-benzyl)-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-2-methyl-3-(3-piperazin-1-
ylmethyl-benzyl)-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-2-methyl-3-(3-piperidin-1-
ylmethyl-benzyl)-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-2-methyl-3-(4-
methylaminomethyl-benzyl)-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-2-methyl-3-(4-morpholin-4-
ylmethyl-benzyl)-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-2-methyl-3-(4-piperazin-1-
ylmethyl-benzyl)-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-2-methyl-3-(4-piperidin-1-
ylmethyl-benzyl)-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-2-methyl-3-[3-(morpholine-
4-carbonyl)-benzyl]-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-2-methyl-3-[3-(piperidine-
```

```
1-carbonyl)-benzyl]-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-2-methyl-3-[3-
(pyrrolidine-1-carbonyl)-benzyl]-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-2-methyl-3-[4-(4-methyl-
piperazine-1-carbonyl)-benzyl]-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-2-methyl-3-[4-(morpholine-
4-carbonyl)-benzyl]-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-2-methyl-3-[4-(piperidine-
1-carbonyl)-benzyl]-3H-pyrimidin-4-one;
    5-bromo-6-(2,4-difluoro-benzyloxy)-2-methyl-3-[4-
(pyrrolidine-1-carbonyl)-benzyl]-3H-pyrimidin-4-one;
    5-bromo-6-(5-chloro-benzyloxy)-3-(3-fluoro-benzyl)-3H-
pyrimidin-4-one;
    5-bromo-6-(4-chloro-benzyloxy)-3-(2-phenylsulfanyl-ethyl)-3H-
pyrimidin-4-one;
    5-bromo-6-[(2,4-difluorobenzyl)amino]-3-(2,6-difluorophenyl)-
2-methylpyrimidin-4(3H)-one trifluoroacetate;
    5-bromo-6-[(2,4-difluorobenzyl)amino]-3-(3-
fluorobenzyl)pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-({5-
[(dimethylamino)methyl]pyrazin-2-yl}methyl)-2-methylpyrimidin-
4(3H)-one trifluoroacetate;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(1H-indazol-5-
ylmethyl)pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluoro-4-
morpholin-4-ylphenyl)-2-methylpyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluorophenyl)-5-
(1,2-dihydroxyethyl) -2-methylpyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluorophenyl)-5-
(1,2-dihydroxy-2-phenylethyl)-2-methylpyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluorophenyl)-5-
(hydroxymethyl) -2-methylpyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluorophenyl)-1-
iodo-2-methylpyrimidin-4(1H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluorophenyl)-2-
(hydroxymethyl)pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluorophenyl)-2-
(morpholin-4-ylmethyl)pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluorophenyl)-2-
[(dimethylamino)methyl]pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluorophenyl)-2-
[(ethoxyamino)methyl]pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluorophenyl)-2-
{ [(2-methoxyethyl)amino]methyl}pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluorophenyl)-2-
methylpyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluorophenyl)-2-
methyl-5-vinylpyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluorophenyl)-2-
```

```
methyl-5-oxiran-2-ylpyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluorophenyl)-2-
methyl-1-[(E)-2-phenylvinyl]pyrimidin-4(1H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-dimethylphenyl)-2-
methylpyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(pyridin-3-
ylmethyl)pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[(5-{[(2-
hydroxyethyl) (methyl)amino]methyl}pyrazin-2-yl)methyl]-2-
methylpyrimidin-4(3H)-one trifluoroacetate (salt);
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[2-(dimethylamino)-4,6-
difluorophenyl] -2-methylpyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[2-(dimethylamino)-4,6-
difluorophenyl]-2-methylpyrimidin-4(3H)-one hydrochloride;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[2,6-difluoro-4-(4-
methylpiperazin-1-yl)phenyl]-2-methylpyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[2-fluoro-5-
(hydroxymethyl) phenyl] -2-methylpyrimidin-4(3H) -one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[2-fluoro-6-(4-
methylpiperazin-1-yl)phenyl]-2-methylpyrimidin-4(3H)-one
trifluoroacetate;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[3-
(hydroxymethyl) phenyl] -2-methylpyrimidin-4 (3H) -one
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[4-(dimethylamino)-2,6-
difluorophenyl] -2-methylpyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[4-(hydroxymethyl)-2-
methoxyphenyl] -2-methylpyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[5-(1-hydroxy-1-
methylethyl) -2-methylphenyl] -2-methylpyrimidin-4(3H) -one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[5-(hydroxymethyl)-2-
methylphenyl]-2-methylpyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-{[5-(1-hydroxy-1-
methylethyl)pyrazin-2-yl]methyl}-2-methylpyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-{[5-
(hydroxymethyl)pyrazin-2-yl]methyl}-2-methylpyrimidin-4(3H)-one;
    hydroxyethyl) (methyl) amino] phenyl \} - 2 - methylpyrimidin - 4 (3H) - one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-{2,6-difluoro-4-[(2-
hydroxyethyl) (methyl) amino] phenyl \} - 2 - methylpyrimidin - 4 (3H) - one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-{3-}
[(dimethylamino)methyl]phenyl}-2-methylpyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-{5-}
[(dimethylamino)methyl]-2-methylphenyl}-2-methylpyrimidin-4(3H)-
one hydrochloride;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-{5-}
[(isopropylamino)methyl]-2-methylphenyl}-2-methylpyrimidin-4(3H)-
one hydrochloride;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-5'-(1-hydroxy-1-
methylethyl)-2-methyl-6H-1,2'-bipyrimidin-6-one;
```

```
5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-(hydroxymethyl)-3-
(2,4,6-trifluorophenyl)pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-({5-[(4-
methylpiperazin-1-yl)carbonyl]pyrazin-2-yl}methyl)pyrimidin-
4(3H)-one trifluoroacetate;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-({5-
[(methylamino)methyl]pyrazin-2-yl}methyl)pyrimidin-4(3H)-one
trifluoroacetate;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-(2,4,6-
trifluorophenyl)pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-(2-morpholin-
4-ylethyl)pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-
(tetrahydrofuran-2-ylmethyl)pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[(5-
methylpyrazin-2-yl)methyl]pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[2-
(methylthio)pyrimidin-4-yl]pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[2-
(trifluoromethyl)phenyl]pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[2-methyl-5-
(morpholin-4-ylcarbonyl)phenyl]pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[3-(morpholin-
4-ylcarbonyl)phenyl]pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[3-(piperazin-
1-ylcarbonyl)benzyl]pyrimidin-4(3H)-one hydrochloride;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[3-(piperidin-
1-ylcarbonyl)phenyl]pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[3-
(pyrrolidin-1-ylcarbonyl) phenyl] pyrimidin-4 (3H) -one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[4-(morpholin-
4-ylcarbonyl)phenyl]pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[4-(piperazin-
1-ylcarbonyl)benzyl]pyrimidin-4(3H)-one hydrochloride;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[4-(piperazin-
1-ylcarbonyl)phenyl]pyrimidin-4(3H)-one hydrochloride;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[4-(piperidin-
1-ylcarbonyl)phenyl]pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[4-
(pyrrolidin-1-ylcarbonyl)phenyl]pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-{3-[(4-
methylpiperazin-1-yl)carbonyl]phenyl}pyrimidin-4(3H)-one;
    5-bromo-6-[(2, 4-difluorobenzyl)oxy]-2-methyl-3-{4-[(4-
methylpiperazin-1-yl)carbonyl]benzyl}pyrimidin-4(3H)-one;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-
one;
    5-bromo-6-[(2,4-difluorophenyl)amino]-3-(3-
fluorobenzyl)pyrimidin-4(3H)-one;
    5-bromo-6-[(2,6-difluorobenzyl)oxy]-3-(2,6-dimethylphenyl)-2-
```

```
methylpyrimidin-4(3H)-one;
    5-bromo-6-[(2,6-difluorobenzyl)oxy]-2-methyl-3-(pyridin-4-
ylmethyl)pyrimidin-4(3H)-one;
    5-bromo-6-[(3,4-difluorobenzyl)oxy]-3-(3-
fluorobenzyl)pyrimidin-4(3H)-one;
    5-bromo-6-[(4-chloro-2-fluorobenzyl)amino]-3-(3-
fluorobenzyl)pyrimidin-4(3H)-one;
    5-bromo-6-[(4-fluorobenzyl)oxy]-3-(4-methoxybenzyl)pyrimidin-
4 (3H) -one;
    5-bromo-6-[(4-fluorobenzyl)oxy]-3-[2-
(hydroxymethyl) benzyl] pyrimidin-4 (3H) -one;
    5-bromo-6-[(4-fluorobenzyl)oxy]-3-[3-
(trifluoromethyl)benzyl]pyrimidin-4(3H)-one;
    5-bromo-6-[(4-fluorobenzyl)oxy]-3-[4-
(trifluoromethyl)benzyl]pyrimidin-4(3H)-one;
     5-bromo-6-[(4-tert-butylbenzyl)oxy]-3-(3-
fluorobenzyl)pyrimidin-4(3H)-one;
    5-bromo-6-hydroxy-3-(4-hydroxybenzyl)pyrimidin-4(3H)-one
hydrochloride;
     5-bromo-2-methyl-3-(pyridin-4-ylmethyl)-6-[(2,4,6-
trifluorobenzyl) oxy] pyrimidin-4(3H) -one;
    5-bromo-2-methyl-3-pyridin-3-ylmethyl-6-[(pyridin-3-
ylmethyl) - amino] - 1H - pyrimidin - 4 - one;
    5-chloro-3-(1,3-diacetyl-2,3-dihydro-1H-benzimidazol-5-yl)-6-
[(2,4-difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
    5-chloro-3-(4-fluorobenzyl)-6-[(4-fluorobenzyl)oxy]pyrimidin-
4(3H)-one;
    5-chloro-3-[(1,3-diacetyl-2,3-dihydro-1H-benzimidazol-5-
yl)methyl]-6-[(2,4-difluorobenzyl)oxy]pyrimidin-4(3H)-one;
     5-chloro-3-[2-chloro-5-(hydroxymethyl)phenyl]-6-[(2,4-
difluorobenzyl) oxy] -2-methylpyrimidin-4(3H) -one;
    5-chloro-6-(2,4-difluoro-benzyloxy)-3-(3-fluoro-benzyl)-1H-
pyrimidin-4-one;
    5-chloro-6-(2,4-difluoro-benzyloxy)-3-(3-methanesulfonyl-
benzyl)-3H-pyrimidin-4-one;
    5-Chloro-6-(2,4-difluoro-benzyloxy)-3-(5-hydroxymethyl-
pyrazin-2-ylmethyl)-2-methyl-3H-pyrimidin-4-one;
    5-Chloro-6-(2,4-difluoro-benzyloxy)-3-[4-(1,2-dihydroxy-
ethyl)-2-methyl-phenyl]-2-methyl-3H-pyrimidin-4-one;
     5-chloro-6-(2,4-difluoro-benzyloxy)-3-[4-(isopropylamino-
methyl)-benzyl]-3H-pyrimidin-4-one;
    5-Chloro-6-(2,4-difluoro-benzyloxy)-2-methyl-3-(5-methyl-
pyrazin-2-ylmethyl)-3H-pyrimidin-4-one;
     5-chloro-6-[(2,4-difluorobenzyl)amino]-3-(2,6-
difluorophenyl) -2-methylpyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-(1,2,3,4-
tetrahydroisoquinolin-5-ylmethyl)pyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-(1,2,3,4-
tetrahydroisoquinolin-6-ylmethyl)pyrimidin-4(3H)-one;
```

```
5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-(1,3-diglycoloyl-2,3-
dihydro-1H-benzimidazol-5-yl)-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-(1-glycoloyl-1H-
benzimidazol-5-yl)-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-(1-glycoloyl-1H-
imidazol-4-yl) -2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-(1-glycoloyl-1H-indol-
5-yl) -2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-(1-glycoloyl-1H-
pyrazol-4-yl)-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-(1-glycoloyl-1H-
pyrrol-3-yl)-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-(1-glycoloyl-2,3-
dihydro-1H-indol-5-yl)-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-(1H-indol-5-
ylmethyl)pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-(2,3-dihydro-1H-
benzimidazol-5-ylmethyl)pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-(2,3-dihydro-1H-indol-
5-ylmethyl)pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-(2,3-dihydro-1H-
isoindol-5-ylmethyl)pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluorophenyl)-
6-(hydroxymethyl)pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluorophenyl)-
6-[(dimethylamino)methyl]pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluorophenyl)-
2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-(2-glycoloyl-1,2,3,4-
tetrahydroisoquinolin-6-yl)-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-(2-glycoloyl-1,2,3,4-
tetrahydroisoquinolin-7-yl)-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-(2-glycoloyl-2,3-
dihydro-1H-isoindol-5-yl)-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-(isoquinolin-5-
ylmethyl)pyrimidin-4(3H)-one trifluoroacetate;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-(isoquinolin-6-
ylmethyl)pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[(1,3-diglycoloyl-2,3-
dihydro-1H-benzimidazol-5-yl)methyl]pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[(1-glycoloyl-2,3-
dihydro-1H-indol-5-yl) methyl] pyrimidin-4 (3H) -one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[(1-glycoloyl-2,3-
dihydro-1H-benzimidazol-5-yl)methyl]pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[(2-glycoloyl-1,2,3,4-
tetrahydroisoquinolin-6-yl)methyl]pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[(2-glycoloyl-1,2,3,4-
tetrahydroisoguinolin-5-yl)methyl]pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[(2-glycoloyl-2,3-
```

```
dihydro-1H-isoindol-5-yl)methyl]pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[(3-glycoloyl-2,3-
dihydro-1H-benzimidazol-5-yl)methyl]pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(2-hydroxy-2-
methylpropanoyl) -2,3-dihydro-1H-indol-5-yl] -2-methylpyrimidin-
4(3H)-one:
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(2-hydroxy-2-
methylpropanoyl)-1H-indol-5-yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(2-hydroxy-2-
methylpropanoyl)-1H-benzimidazol-5-yl]-2-methylpyrimidin-4(3H)-
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(2-hydroxy-2-
methylpropanoyl) -3-(N-methylglycyl) -2,3-dihydro-1H-benzimidazol-
5-yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(2-hydroxy-2-
methylpropanoyl)-3-(3-hydroxypropanoyl)-2,3-dihydro-1H-
benzimidazol-5-yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(2-hydroxy-2-
methylpropanoyl)-3-(methylsulfonyl)-2,3-dihydro-1H-benzimidazol-
5-yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(2-hydroxy-2-
methylpropanoyl)-1H-pyrrol-3-yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(2-hydroxy-2-
methylpropanoyl)-1H-imidazol-4-yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(2-hydroxy-2-
methylpropanoyl)-1H-pyrazol-4-yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(3-hydroxy-3-
methylbutanoyl) -2,3-dihydro-1H-indol-5-yl] -2-methylpyrimidin-
4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(3-hydroxy-3-
methylbutanoyl) -1H-indol-5-yl] -2-methylpyrimidin-4(3H) -one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(3-hydroxy-3-
methylbutanoyl)-1H-benzimidazol-5-yl]-2-methylpyrimidin-4(3H)-
one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(3-hydroxy-3-
methylbutanoyl)-3-(2-hydroxy-2-methylpropanoyl)-2,3-dihydro-1H-
benzimidazol-5-yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(3-hydroxy-3-
methylbutanoyl)-3-(N-methylqlycyl)-2,3-dihydro-1H-benzimidazol-5-
yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(3-hydroxy-3-
methylbutanoyl) -3-(3-hydroxypropanoyl) -2,3-dihydro-1H-
benzimidazol-5-yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(3-hydroxy-3-
methylbutanoyl)-3-(methylsulfonyl)-2,3-dihydro-1H-benzimidazol-5-
yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(3-hydroxy-3-
methylbutanoyl)-1H-pyrrol-3-yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(3-hydroxy-3-
```

```
methylbutanoyl)-1H-imidazol-4-yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(3-hydroxy-3-
methylbutanoy1)-1H-pyrazol-4-y1]-2-methylpyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(3-
hydroxypropanovl)-1H-indol-5-yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(3-
hydroxypropanoyl)-1H-benzimidazol-5-yl]-2-methylpyrimidin-4(3H)-
one:
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(3-
hydroxypropanoyl)-1H-pyrrol-3-yl]-2-methylpyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(3-
hydroxypropanoyl)-1H-imidazol-4-yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(3-
hydroxypropanoyl)-1H-pyrazol-4-yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(3-
hydroxypropanoyl) -2, 3-dihydro-1H-indol-5-yl] -2-methylpyrimidin-
4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(3-
hydroxypropanoyl) -3-(N-methylglycyl) -2,3-dihydro-1H-benzimidazol-
5-yl]-2-methylpyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-(3-
hydroxypropanoyl) -3- (methylsulfonyl) -2,3-dihydro-1H-benzimidazol-
5-yl]-2-methylpyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-glycoloyl-3-(2-
hydroxy-2-methylpropanoyl)-2,3-dihydro-1H-benzimidazol-5-yl]-2-
methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-glycoloyl-3-(3-
hydroxy-3-methylbutanoyl)-2,3-dihydro-1H-benzimidazol-5-yl]-2-
methylpyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-glycoloyl-3-(3-
hydroxypropanoyl) -2,3-dihydro-1H-benzimidazol-5-yl] -2-
methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-qlycoloyl-3-
(methylsulfonyl)-2,3-dihydro-1H-benzimidazol-5-yl]-2-
methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[1-qlycoloyl-3-(N-
methylglycyl) -2,3-dihydro-1H-benzimidazol-5-yl] -2-
methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[2-(2-hydroxy-2-
methylpropanoyl) -2,3-dihydro-1H-isoindol-5-yl] -2-methylpyrimidin-
4 (3H) -one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[2-(2-hydroxy-2-
methylpropanoyl)-1,2,3,4-tetrahydroisoquinolin-6-yl]-2-
methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[2-(2-hydroxy-2-
methylpropanoyl)-1,2,3,4-tetrahydroisoquinolin-7-yl]-2-
methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[2-(3-hydroxy-3-
methylbutanoyl)-2,3-dihydro-1H-isoindol-5-yl]-2-methylpyrimidin-
```

```
4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[2-(3-hydroxy-3-
methylbutanoyl)-1,2,3,4-tetrahydroisoquinolin-6-yl]-2-
methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[2-(3-hydroxy-3-
methylbutanoyl)-1,2,3,4-tetrahydroisoquinolin-7-yl]-2-
methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[2-(3-
hydroxypropanoyl)-1,2,3,4-tetrahydroisoquinolin-6-yl]-2-
methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[2-(3-
hydroxypropanoyl)-1,2,3,4-tetrahydroisoguinolin-7-yl]-2-
methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[2-(3-
hydroxypropanoyl) -2, 3-dihydro-1H-isoindol-5-yl] -2-
methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[2,6-difluoro-4-(4-
methylpiperazin-1-yl)phenyl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[3-(2-hydroxy-2-
methylpropanoyl)-1-(N-methylglycyl)-2,3-dihydro-1H-benzimidazol-
5-yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[3-(2-hydroxy-2-
methylpropanoyl)-1-(3-hydroxypropanoyl)-2,3-dihydro-1H-
benzimidazol-5-yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[3-(2-hydroxy-2-
methylpropanoyl)-1-(methylsulfonyl)-2,3-dihydro-1H-benzimidazol-
5-yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[3-(3-hydroxy-5-
methylbutanoyl)-1-(2-hydroxy-2-methylpropanoyl)-2,3-dihydro-1H-
benzimidazol-5-yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[3-(3-hydroxy-5-
methylbutanoyl)-1-(N-methylglycyl)-2,3-dihydro-1H-benzimidazol-5-
yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[3-(3-hydroxy-5-
methylbutanoyl)-1-(3-hydroxypropanoyl)-2,3-dihydro-1H-
benzimidazol-5-yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[3-(3-hydroxy-3-
methylbutanoyl) -1- (methylsulfonyl) -2, 3-dihydro-1H-benzimidazol-5-
yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[3-(3-
hydroxypropanoyl)-1-(N-methylglycyl)-2,3-dihydro-1H-benzimidazol-
5-yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[3-(3-
hydroxypropanoyl)-1-(methylsulfonyl)-2,3-dihydro-1H-benzimidazol-
5-yl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[3-
(hydroxymethyl)phenyl]-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[3-qlycoloyl-1-(2-
hydroxy-2-methylpropanoyl)-2,3-dihydro-1H-benzimidazol-5-yl]-2-
```

```
methylpyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[3-qlycoloyl-1-(3-
hydroxy-3-methylbutanoyl)-2,3-dihydro-1H-benzimidazol-5-yl]-2-
methylpyrimidin-4(3H)-one;;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[3-glycoloyl-1-(3-
hydroxypropanoyl) -2, 3-dihydro-1H-benzimidazol-5-yl] -2-
methylpyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[3-glycoloyl-1-
(methylsulfonyl) -2, 3-dihydro-1H-benzimidazol-5-yl] -2-
methylpyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[3-glycoloyl-1-(N-
methylglycyl)-2,3-dihydro-1H-benzimidazol-5-yl]-2-
methylpyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[5-(hydroxymethyl)-2-
methylphenyl] -2-methylpyrimidin-4(3H) -one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[1-(2-hydroxy-2-
methylpropanoyl)-2,3-dihydro-1H-indol-5-yl]methyl}pyrimidin-
4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-\{[1-(2-hydroxy-2-
methylpropanoyl)-2,3-dihydro-1H-benzimidazol-5-
yl]methyl}pyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[1-(2-hydroxy-2-
methylpropanoyl) -3-(N-methylglycyl) -2,3-dihydro-1H-benzimidazol-
5-yl]methyl}pyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[1-(2-hydroxy-2-
methylpropanoyl) -3-(3-hydroxypropanoyl) -2,3-dihydro-1H-
benzimidazol-5-yl]methyl}pyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[1-(2-hydroxy-2-
methylpropanoy1)-3-(methylsulfonyl)-2,3-dihydro-1H-benzimidazol-
5-vl]methyl}pyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[1-(3-hydroxy-3-
methylbutanoy1)-2,3-dihydro-1H-indol-5-yl]methyl}pyrimidin-4(3H)-
one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[1-(3-hydroxy-3-
methylbutanoyl) -2,3-dihydro-1H-benzimidazol-5-
yl]methyl}pyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-\{[1-(3-hydroxy-3-
methylbutanoy1)-3-(2-hydroxy-2-methylpropanoy1)-2,3-dihydro-1H-
benzimidazol-5-yl]methyl}pyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[1-(3-hydroxy-3-
methylbutanoyl) -3-(N-methylglycyl) -2,3-dihydro-1H-benzimidazol-5-
yl]methyl}pyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[1-(3-hydroxy-3-
methylbutanoyl)-3-(3-hydroxypropanoyl)-2,3-dihydro-1H-
benzimidazol-5-yl]methyl}pyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[1-(3-hydroxy-3-
methylbutanoyl) - 3 - (methylsulfonyl) - 2, 3 - dihydro - 1H - benzimidazol - 5 -
yl]methyl}pyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[1-(3-
```

```
hydroxypropanoyl) -2,3-dihydro-1H-indol-5-yl] methyl }pyrimidin-
4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[1-(3-
hydroxypropanoyl) -2,3-dihydro-1H-benzimidazol-5-
yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[1-(3-
hydroxypropanoyl) -3-(N-methylglycyl) -2,3-dihydro-1H-benzimidazol-
5-yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[1-(3-
hydroxypropanoyl) -3- (methylsulfonyl) -2,3-dihydro-1H-benzimidazol-
5-yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-\{(2,4-difluorobenzyl)oxy\}-3-\{\{1-\{methylsulfonyl\}\}-
2,3-dihydro-1H-indol-5-yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[[1-(methylsulfonyl)-
2,3-dihydro-1H-benzimidazol-5-yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[1-(N-methylglycyl)-
2,3-dihydro-1H-indol-5-yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[1-(N-methylglycyl)-
2,3-dihydro-1H-benzimidazol-5-yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[1-(N-methylglycyl)-
3-(methylsulfonyl)-2,3-dihydro-1H-benzimidazol-5-
yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[1-glycoloyl-3-(2-
hydroxy-2-methylpropanoyl)-2,3-dihydro-1H-benzimidazol-5-
yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[1-glycoloyl-3-(3-
hydroxypropanoyl) -2, 3-dihydro-1H-benzimidazol-5-
yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[1-glycoloyl-3-(3-
hydroxy-3-methylbutanoyl)-2,3-dihydro-1H-benzimidazol-5-
yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[1-glycoloyl-3-
(methylsulfonyl) -2,3-dihydro-1H-benzimidazol-5-
yl]methyl}pyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[1-glycoloy1-3-(N-
methylglycyl)-2,3-dihydro-1H-benzimidazol-5-yl]methyl}pyrimidin-
4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[2-(2-hydroxy-2-
methylpropanoyl) -2,3-dihydro-1H-isoindol-5-yl] methyl pyrimidin-
4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[2-(2-hydroxy-2-
methylpropanoyl)-1,2,3,4-tetrahydroisoguinolin-6-
yl]methyl}pyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[2-(2-hydroxy-2-
methylpropanoyl)-1,2,3,4-tetrahydroisoguinolin-5-
yl]methyl}pyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[2-(3-hydroxy-3-
methylbutanoyl) -2,3-dihydro-1H-isoindol-5-yl] methyl pyrimidin-
4 (3H) -one;
```

```
5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-\{[2-(3-hydroxy-3-
methylbutanoyl)-1,2,3,4-tetrahydroisoquinolin-6-
yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[2-(3-hydroxy-3-
methylbutanoyl)-1,2,3,4-tetrahydroisoguinolin-5-
yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-\{[2-(3-
hydroxypropanoyl)-1,2,3,4-tetrahydroisoguinolin-6-
yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[2-(3-
hydroxypropanoyl) -1,2,3,4-tetrahydroisoquinolin-5-
yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[2-(3-
hydroxypropanoyl) -2,3-dihydro-1H-isoindol-5-yl] methyl }pyrimidin-
4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[2-(methylsulfonyl)-
1,2,3,4-tetrahydroisoquinolin-6-yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[2-(methylsulfonyl)-
1,2,3,4-tetrahydroisoquinolin-5-yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[2-(methylsulfonyl)-
2,3-dihydro-1H-isoindol-5-yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[2-(N-methylglycyl)-
1,2,3,4-tetrahydroisoquinolin-6-yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[2-(N-methylglycyl)-
1,2,3,4-tetrahydroisoquinolin-5-yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[2-(N-methylglycyl)-
2,3-dihydro-1H-isoindol-5-yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[3-(2-hydroxy-2-
methylpropanoyl) -2,3-dihydro-1H-benzimidazol-5-
yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[3-(2-hydroxy-2-
methylpropanoyl) -1-(N-methylglycyl) -2,3-dihydro-1H-benzimidazol-
5-yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[3-(2-hydroxy-2-
methylpropanoyl)-1-(3-hydroxypropanoyl)-2,3-dihydro-1H-
benzimidazol-5-yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[3-(2-hydroxy-2-
methylpropanoyl) -1- (methylsulfonyl) -2,3-dihydro-1H-benzimidazol-
5-yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[3-(3-hydroxy-3-
methylbutanoyl)-2,3-dihydro-1H-benzimidazol-5-
yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[3-(3-hydroxy-3-
methylbutanoyl)-1-(2-hydroxy-2-methylpropanoyl)-2,3-dihydro-1H-
benzimidazol-5-yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[3-(3-hydroxy-3-
methylbutanoyl)-1-(N-methylglycyl)-2,3-dihydro-1H-benzimidazol-5-
yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[3-(3-hydroxy-3-
```

```
methylbutanoyl) -1- (methylsulfonyl) -2, 3-dihydro-1H-benzimidazol-5-
yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[3-(3-hydroxy-3-
methylbutanoyl) -1-(3-hydroxypropanoyl) -2,3-dihydro-1H-
benzimidazol-5-yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[3-(3-
hydroxypropanoyl) -1-(N-methylglycyl) -2,3-dihydro-1H-benzimidazol-
5-yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[3-(3-
hydroxypropanoyl)-1-(methylsulfonyl)-2,3-dihydro-1H-benzimidazol-
5-yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[3-(3-
hydroxypropanoyl) -2, 3-dihydro-1H-benzimidazol-5-
yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[3-(methylsulfonyl)-
2,3-dihydro-1H-benzimidazol-5-yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[3-(N-methylglycyl)-
1-(methylsulfonyl)-2,3-dihydro-1H-benzimidazol-5-
yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[3-(N-methylglycyl)-
2.3-dihydro-1H-benzimidazol-5-yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[3-glycoloyl-1-(2-
hydroxy-2-methylpropanoyl)-2,3-dihydro-1H-benzimidazol-5-
yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[3-glycoloyl-1-(3-
hydroxypropanoyl) -2,3-dihydro-1H-benzimidazol-5-
yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[3-qlycoloyl-1-(3-
hydroxy-3-methylbutanoyl)-2,3-dihydro-1H-benzimidazol-5-
yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[3-glycoloyl-1-
(methylsulfonyl) -2,3-dihydro-1H-benzimidazol-5-
yl]methyl}pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[3-qlycoloyl-1-(N-
methylglycyl)-2,3-dihydro-1H-benzimidazol-5-yl]methyl}pyrimidin-
4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[5-
(hydroxymethyl)pyrazin-2-yl]methyl}-2-methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-1-isoquinolin-7-yl-2-
methylpyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-6-(hydroxymethyl)-3-
(2,4,6-trifluorophenyl)pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-(2,4,6-
trifluorophenyl)pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[(5-
methylpyrazin-2-yl)methyl]pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[3-
(methylsulfonyl) -2,3-dihydro-1H-indol-5-yl]pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[3-
```

```
(methylsulfonyl)-1H-indol-5-yl]pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[3-
(methylsulfonyl)-1H-benzimidazol-5-yl]pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[1-
(methylsulfonyl)-1H-pyrrol-3-yl]pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[1-
(methylsulfonyl)-1H-imidazol-4-yl]pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[1-
(methylsulfonyl) -1H-pyrazol-4-yl]pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[1-(N-
methylglycyl)-2,3-dihydro-1H-indol-5-yl]pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[1-(N-
methylglycyl)-1H-indol-5-yl]pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[1-(N-
methylqlycyl)-1H-benzimidazol-5-yl]pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[1-(N-
methylglycyl)-3-(methylsulfonyl)-2,3-dihydro-1H-benzimidazol-5-
yl]pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[1-(N-
methylglycyl)-1H-pyrrol-3-yl]pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[1-(N-
methylglycyl)-1H-imidazol-4-yl]pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[1-(N-
methylglycyl)-1H-pyrazol-4-yl]pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[2-
(methylsulfonyl) -2,3-dihydro-1H-isoindol-5-yl]pyrimidin-4(3H)-
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[2-
(methylsulfonyl)-1,2,3,4-tetrahydroisoguinolin-6-yl]pyrimidin-
4 (3H) -one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[2-
(methylsulfonyl)-1,2,3,4-tetrahydroisoguinolin-7-yl]pyrimidin-
4(3H)-one:
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[2-(N-
methylqlycyl)-2,3-dihydro-1H-isoindol-5-yl]pyrimidin-4(3H)-one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[2-(N-
methylglycyl)-1,2,3,4-tetrahydroisoquinolin-6-yl]pyrimidin-4(3H)-
one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[2-(N-
methylglycyl)-1,2,3,4-tetrahydroisoquinolin-7-yl]pyrimidin-4(3H)-
one;
    5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[3-(N-
methylglycyl)-1-(methylsulfonyl)-2,3-dihydro-1H-benzimidazol-5-
yl]pyrimidin-4(3H)-one;
    4-({[5-bromo-3-(3-fluorobenzyl)-4-oxo-3,4-dihydropyrimidin-6-
yl]oxy{methyl)benzonitrile;
    6-(2,4-difluoro-benzyloxy)-3-(3-fluoro-benzyl)-5-iodo-1H-
pyrimidin-4-one;
    6-(2,4-difluoro-benzyloxy)-2-methyl-3-(2,4,6-trifluoro-
```

```
phenyl)-1H-pyrimidin-4-one;
    6-(allylamino)-3-(2,6-difluorophenyl)-1-iodo-2-
methylpyrimidin-4(3H)-one;
    6-(allylamino)-5-bromo-3-(2,6-difluorophenyl)-1-iodo-2-
methylpyrimidin-4(3H)-one;
    6-(allylamino)-5-bromo-3-(2,6-difluorophenyl)-2-
methylpyrimidin-4(3H)-one;
    6-(benzylamino)-3-(3-fluorobenzyl)-2-methyl-5-nitropyrimidin-
4 (3H) -one;
    6-(benzylamino)-5-bromo-3-(2,6-difluorophenyl)-1-iodo-2-
methylpyrimidin-4(3H)-one;
    6-(benzyloxy)-3-(2,2-diethoxyethyl)pyrimidin-4(3H)-one;
    6-(benzyloxy)-3-(2-oxopropyl)pyrimidin-4(3H)-one;
    6-(benzyloxy)-3-(3-fluorobenzyl)-5-
(trifluoromethyl)pyrimidin-4(3H)-one;
    6-(benzyloxy)-3-(3-fluorobenzyl)-5-methylpyrimidin-4(3H)-one;
    6-(benzyloxy)-3-(piperidin-3-ylmethyl)pyrimidin-4(3H)-one
trifluoroacetate;
    6-(benzyloxy)-3-[4-(methylsulfonyl)benzyl]pyrimidin-4(3H)-one
    6-(benzyloxy)-3-[4-(methylthio)benzyl]pyrimidin-4(3H)-one
    6-(benzyloxy)-3-ethylpyrimidin-4(3H)-one
    6-(benzyloxy)-5-bromo-3-(2,6-dichlorophenyl)-2-
methylpyrimidin-4(3H)-one;
    6-(benzyloxy)-5-bromo-3-(2-fluorobenzyl)pyrimidin-4(3H)-one;
    6-(benzyloxy)-5-bromo-3-(2-morpholin-4-ylethyl)pyrimidin-
4(3H)-one;
    6-(benzyloxy)-5-bromo-3-(3-fluorobenzyl)pyrimidin-4(3H)-one;
    6-(benzyloxy)-5-bromo-3-(3-morpholin-4-yl-3-
oxopropyl)pyrimidin-4(3H)-one;
    6-(benzyloxy)-5-bromo-3-(3-oxo-3-piperazin-1-
ylpropyl)pyrimidin-4(3H)-one hydrochloride;
    6-(benzyloxy)-5-bromo-3-(4-bromobenzyl)pyrimidin-4(3H)-one;
    6-(benzyloxy)-5-bromo-3-(4-chlorobenzyl)pyrimidin-4(3H)-one;
    6-(benzyloxy)-5-bromo-3-(4-methylbenzyl)pyrimidin-4(3H)-one;
    6-(benzyloxy)-5-bromo-3-(piperidin-3-ylmethyl)pyrimidin-
4(3H)-one;
    6-(benzyloxy)-5-bromo-3-[(6-fluoropyridin-3-
yl) methyl] pyrimidin-4(3H) -one;
    6-(benzyloxy)-5-bromo-3-[2-(2-thienyl)ethyl]pyrimidin-4(3H)-
one;
    6-(benzyloxy)-5-bromo-3-[2-(3-thienyl)ethyl]pyrimidin-4(3H)-
one;
    6-(benzyloxy)-5-bromo-3-[4-(morpholin-4-
ylcarbonyl)phenyl]pyrimidin-4(3H)-one;
    6-(benzyloxy)-5-bromo-3-piperidin-4-ylpyrimidin-4(3H)-one
hydrochloride;
    4-(biphenyl-2-ylmethoxy)-5-bromo-3-(3-fluorobenzyl)pyrimidin-
4(3H)-one;
    6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluoro-4-hydroxyphenyl)-
```

```
2-methylpyrimidin-4(3H)-one;
    6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluoro-4-morpholin-4-
ylphenyl) -2-methylpyrimidin-4(3H) -one;
    6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluorophenyl)-6-
(hydroxymethyl)pyrimidin-4(3H)-one;;
    6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluorophenyl)-2-
methylpyrimidin-4(3H)-one;
    6-[(2,4-difluorobenzyl)oxy]-3-(3-fluorobenzyl)-4-oxo-3,4-
dihydropyrimidine-5-carbonitrile;
    6-[(2,4-difluorobenzyl)oxy]-3-(3-fluorobenzyl)-5-
methylpyrimidin-4(3H)-one;
    6-[(2,4-difluorobenzyl)oxy]-3-(4-methoxybenzyl)-2-
methylpyrimidin-4(3H)-one;
    6-[(2,4-difluorobenzyl)oxy]-3-[2,6-difluoro-4-(4-
methylpiperazin-1-yl)phenyl]-2-methylpyrimidin-4(3H)-one;
    6-[(2,4-difluorobenzyl)oxy]-3-[4-(dimethylamino)-2,6-
difluorophenyl] -2-methylpyrimidin-4(3H) -one;
    6-[(2,4-difluorobenzyl)oxy]-3-[5-(hydroxymethyl)-2-
methylphenyl]-2-methylpyrimidin-4(3H)-one;
    6-[(2,4-difluorobenzyl)oxy]-3-{2,6-difluoro-4-[(2-
hydroxyethyl) (methyl) amino] phenyl \} - 2 - methylpyrimidin - 4 (3H) - one;
    6-[(2,4-difluorobenzyl)oxy]-2-(hydroxymethyl)-3-(2,4,6-
trifluorophenyl)pyrimidin-4(3H)-one;
    6-[(2,4-difluorobenzyl)oxy]-2-(hydroxymethyl)-3-(pyridin-3-
ylmethyl)pyrimidin-4(3H)-one;
    6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-(tetrahydrofuran-2-
ylmethyl)pyrimidin-4(3H)-one;
    6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[2-
(trifluoromethyl)phenyl]pyrimidin-4(3H)-one;
    6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-prop-2-yn-1-
ylpyrimidin-4(3H)-one;
    6-[3-amino-1-(2,4-difluoro-phenyl)-propoxy]-5-bromo-2-methyl-
3-pyridin-3-ylmethyl-3H-pyrimidin-4-one;
    6-\{[2-(aminomethyl)-4-fluorobenzyl]oxy\}-5-bromo-3-(2,6-
difluorophenyl) - 2-methylpyrimidin - 4(3H) - one trifluoroacetate;
    6-anilino-5-bromo-3-(3-fluorobenzyl)pyrimidin-4(3H)-one;
    6-benzo[1,3]dioxol-5-yl-5-bromo-3-(3-fluoro-benzyl)-3H-
pyrimidin-4-one;
    6-benzyloxy-3-difluoromethyl-3H-pyrimidin-4-one;
    6-benzyloxy-3H-pyrimidin-4-one;
    6-benzyloxy-5-bromo-3-(2-chloro-phenyl)-2-methyl-3H-
pyrimidin-4-one;
    6-benzyloxy-5-bromo-3-(3-fluoro-benzyl)-3H-pyrimidin-4-one;
    6-benzyloxy-5-bromo-3-(4-bromo-benzyl)-3H-pyrimidin-4-one;
    6-benzyloxy-5-bromo-3-(4-chloro-benzyl)-3H-pyrimidin-4-one;
    6-benzyloxy-5-bromo-3-(4-fluoro-benzyl)-3H-pyrimidin-4-one;
    6-benzyloxy-5-bromo-3-(4-methylsulfanyl-benzyl)-3H-pyrimidin-
4-one:
    6-benzyloxy-5-bromo-3-methanesulfonyl-3H-pyrimidin-4-one;
```

```
6-benzyloxy-5-methyl-3H-pyrimidin-4-one;
    6-phenoxy-3-{[2-(trimethylsilyl)ethoxy]methyl}pyrimidin-
4 (3H) - one:
    6-phenoxy-3H-pyrimidin-4-one;
    1-[4-(5-chloro-phenyl)-piperazine-1-carbonyl]-3-(3,4-
dichloro-benzyl)-3H-pyrimidin-4-one;
    1-methyl-3-phenyl-3H-pyrimidin-4-one;
    5-bromo-3-(3-fluorobenzyl)-6-(4-methylpiperazin-1-
yl)pyrimidin-4(3H)-one trifluoroacetate;
    3-\{[5-bromo-4-\{(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N,N-dimethylbenzamide;
    3-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-methylbenzamide;
    3-\{[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-(2-hydroxyethyl)benzamide;
    3-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N,N-bis(2-hydroxyethyl)benzamide;
    3-\{[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-isopropylbenzamide;
    3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-methylbenzaldehyde;
    3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N-(2-hydroxyethyl)-4-methylbenzamide;
    3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N-hydroxybenzamide;
    3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N, N-dimethylbenzamide;
    3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N-(2-hydroxyethyl)benzamide;
     3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N-isopropylbenzamide;
    3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N,4-dimethylbenzamide;
    3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-methylbenzoic acid;
    3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzoic acid;
    3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N-[2-(dimethylamino)ethyl]benzamide;
    3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N-(2-methoxyethyl)benzamide;
     3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N-[2-(dimethylamino)ethyl]-N-
methylbenzamide;
    3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N-(2-hydroxyethyl)-N-methylbenzamide;
     3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N-(2-methoxyethyl)-N-methylbenzamide;
    4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
```

```
oxopyrimidin-1(6H)-yl]-N-(2-hydroxyethyl)benzamide;
    4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzoic acid;
    2-\{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
vllmethyl}benzonitrile;
    2-(3-\{[5-bromo-4-[(2,4-difluorobenzyl)] - 6-oxopyrimidin-
1(6H)-yl]methyl}phenyl)acetamide;
    2-chloro-N-[3-(2,6-dichlorobenzyl)-4-oxo-5-(trifluoromethyl)-
3,4-dihydropyrimidin-1(2H)-yl]-4-fluorobenzamide;
    6-oxo-2-(2-phenylethyl)-1,6-dihydropyrimidine-5-carbonitrile;
    6-oxo-2-phenyl-1,6-dihydropyrimidine-5-carbonitrile;
    methyl 3-{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]methyl}benzoate;
    3-\{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]methyl}benzonitrile;
    3-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-
yl]methyl}benzamide;
    3-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzonitrile;
    methyl 3-\{[5-bromo-4-[(2,4-difluorobenzyl)] - 2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzoate;
    3-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzamide;
    3-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-hydroxybenzamide;
    1-benzyl-5-bromo-2-methyl-6-oxo-1,6-dihydropyrimidin-4-yl
methanesulfonate;
    1-benzyl-2-methyl-6-oxo-1,6-dihydropyrimidin-4-yl
methanesulfonate;
    3-benzyl-N-(2-morpholin-4-ylethyl)-4-oxo-3,4-
dihydropyrimidine-1(2H)-carboxamide;
    N-(4-\{[5-chloro-4-[(2,4-difluorobenzyl)] -2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)-1-
hydroxycyclopropanecarboxamide;
    2-({ [5-bromo-6-oxo-1-(pyridin-3-ylmethyl)-1,6-
dihydropyrimidin-4-yl]oxy}methyl)-5-fluorobenzonitrile;
    2-({3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzyl}amino)-2-oxoethyl acetate;
    2-(2-\{[5-bromo-4-[(2,4-difluorobenzyl)] - 6-oxopyrimidin-
1(6H)-yl]methyl}phenyl)acetamide;
    2-[({1-[(4-amino-2-methylpyrimidin-5-yl)methyl]-5-bromo-2-
methyl-6-oxo-1,6-dihydropyrimidin-4-yl}oxy)methyl]-5-
fluorobenzonitrile;
    2-[4-(benzyloxy)-6-oxopyrimidin-1(6H)-yl]acetamide;
    2-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-
yl]methyl}benzonitrile;
    2-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzonitrile;
    2-\{[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-6-
```

```
oxopyrimidin-1(6H)-yl]methyl}benzamide;
        2-{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]methyl}benzamide;
        (4-\{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]methyl}phenyl)acetic acid;
         [5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-
1(6H)-yl]acetic acid;
        [5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluorophenyl)-
2-methyl-4-oxo-3,4-dihydropyrimidin-1(2H)-yl]methyl carbamate;
        ethyl [2-({[5-bromo-1-(2,6-difluorophenyl)-2-methyl-6-oxo-
1,6-dihydropyrimidin-4-yl]oxy{methyl)-5-fluorobenzyl]carbamate;
        tert-butyl (3-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)carbamate;
        ethyl (3-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-
oxopyrimidin-1(6H)-yl]methyl}phenyl)acetate;
         (3-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}phenyl)acetonitrile;
        methyl (3-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)carbamate;
        tert-butyl (3-{[5-bromo-4-[(4-fluorobenzyl)oxy]-6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)carbamate;
        N'-[3-chloro-5-(trifluoromethyl)pyridin-2-yl]-3-(2,6-
dichlorobenzyl) -4-oxo-3,4-dihydropyrimidine-1(2H)-carbohydrazide;
        3-(2,6-dichlorobenzyl)-4-oxo-N-[3-(trifluoromethyl)benzyl]-
3,4-dihydropyrimidine-1(2H)-carboxamide;
        3-(2,6-dichlorobenzyl)-4-oxo-N-[4-(trifluoromethoxy)phenyl]-
3,4-dihydropyrimidine-1(2H)-carboxamide;
        3-(2,6-dichlorobenzyl)-4-oxo-N-[3-(trifluoromethyl)phenyl]-
3,4-dihydropyrimidine-1(2H)-carboxamide;
        N-(4-chlorophenyl)-3-(2,6-dichlorobenzyl)-4-oxo-3,4-
dihydropyrimidine-1(2H)-carboxamide;
        3-(2,6-dichlorobenzyl)-N-[2-(dimethylamino)ethyl]-4-oxo-3,4-
dihydropyrimidine-1(2H)-carboxamide;
        3-(3,4-dichlorobenzyl)-N-(2,4-difluorophenyl)-4-oxo-3,4-
dihydropyrimidine-1(2H)-carboxamide;
        1-benzyl-5-bromo-2-methyl-6-oxo-1,6-dihydropyrimidin-4-yl 4-
bromobenzenesulfonate;
         \{4 - [(\{6 - (benzyloxy) - 5 - bromo - 3 - [4 - (carboxymethyl)benzyl] - 3, 4 - (carboxymethy
dihydropyrimidin-4-yl}oxy)methyl]phenyl}acetic acid;
        3-(2,6-dichlorobenzyl)-N-(2,4-difluorophenyl)-4-oxo-3,4-
dihydropyrimidine-1(2H)-carboxamide;
        3-(2,6-dichlorobenzyl)-N-(2-morpholin-4-ylethyl)-4-oxo-3,4-
dihydropyrimidine-1(2H)-carboxamide;
        N-benzyl-3-(2,6-dichlorobenzyl)-4-oxo-3,4-dihydropyrimidine-
1(2H)-carboxamide;
        3-(2,6-dichlorobenzyl)-N-[3-(dimethylamino)propyl]-4-oxo-3,4-
dihydropyrimidine-1(2H)-carboxamide;
        4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N-hydroxybenzamide;
```

```
4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N-methylbenzamide;
    4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N, N-dimethylbenzamide;
    4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N, N-bis(2-hydroxyethyl)benzamide;
    4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N-isopropylbenzamide;
    4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzamide;
    4-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}benzamide;
    4-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N,3-dimethylbenzamide;
    4-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-1H-imidazole-1-carboxamide;
    4-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-1H-pyrazole-1-carboxamide;
    4-[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-yl]benzoic
acid;
    4-[4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-
yl]-3-methylbenzoic acid;
    4-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N,N-dimethylbenzamide
    4-{[5-chloro-4-[(2,4-difluorobenzyl)amino]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzonitrile trifluoroacetate;
    4-\{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]methyl}benzoic acid;
    4-{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
vl]methyl}benzonitrile;
    4-\{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-yl]methyl\}-N'-
hydroxybenzenecarboximidamide;
    3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N-methylbenzamide;
    3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzamide;
    3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N-(2-methoxyethyl)-4-methylbenzamide;
    3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N,N,4-trimethylbenzamide;
    methyl 3-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-
oxopyrimidin-1(6H)-yl]methyl}-2-fluorobenzoate;
    3-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-2-fluorobenzamide;
    3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N,4-dimethylbenzamide;
    3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-methylbenzamide;
    3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
```

```
oxopyrimidin-1(6H)-yl]-4-fluoro-N-methylbenzamide;
    3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-fluorobenzamide;
    3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzoic acid;
    3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-2-methylbenzoic acid;
    3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-1H-pyrrole-1-carboxamide;
    methyl 3-[4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzoate;
    3-acetyl-5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-
oxopyrimidin-1(6H)-yl]methyl}-1-(3-hydroxy-3-methylbutanoyl)-1,3-
dihydro-2H-benzimidazol-2-one;
    3-acetyl-5-{ [5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-
oxopyrimidin-1(6H)-yl]methyl}-2-oxo-2,3-dihydro-1H-benzimidazole-
1-carboxamide;
    3-acetyl-5-{ [5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-
oxopyrimidin-1(6H)-yl]methyl}-1-(methylsulfonyl)-1,3-dihydro-2H-
benzimidazol-2-one;
    3-acetyl-6-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-2,3-dihydro-1H-benzimidazole-1-
carboxamide;
    3-acetyl-6-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-
oxopyrimidin-1(6H)-yl]methyl}-2,3-dihydro-1H-benzimidazole-1-
carboxamide;
    3-acetyl-6-\{ (5-chloro-4-((2,4-difluorobenzyl))oxy \}-6-
oxopyrimidin-1(6H)-yl]methyl}-2-oxo-2,3-dihydro-1H-benzimidazole-
1-carboxamide;
    2-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-6-methylnicotinonitrile;
    6-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]nicotinic acid;
    6-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N-methylnicotinamide;
    6-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N-(2-hydroxyethyl)nicotinamide;
    6-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N-(2-methoxyethyl)nicotinamide;
    6 - \{ [5-bromo-1-(5-carboxypyridin-2-yl)-2-methyl-6-oxo-1,6-
dihydropyrimidin-4-yl]oxy}nicotinic acid;
    4-\{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]methyl}benzamide;
    methyl 4-{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]methyl}benzoate;
    4-\{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]methyl}benzoic acid;
    4-\{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]methyl}benzonitrile;
```

```
4-\{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-yl]methyl\}-N'-
hydroxybenzenecarboximidamide;
    4-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-
yl]methyl}benzamide;
    methyl 4-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-
oxopyrimidin-1(6H)-yl]methyl}benzoate;
    4-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzonitrile;
    methyl 4-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzoate;
    4-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzamide;
    4-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzoic acid;
    4-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-hydroxybenzamide;
    4-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-methylbenzamide;
    4-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N,N-dimethylbenzamide;
    4-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-(2-hydroxyethyl)benzamide;
    4-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N, N-bis(2-hydroxyethyl)benzamide;
    4-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-isopropylbenzamide;
    4-\{[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-[2-
(dimethylamino) ethyl] benzamide;
    4-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-(2-methoxyethyl)benzamide;
    4-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-(2-hydroxyethyl)-N-
methylbenzamide;
    4 - \{ [5-bromo-4-[(2,4-difluorobenzyl)] - 2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-(2-methoxyethyl)-N-
methylbenzamide;
    5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxo-6H-1,4'-
bipyrimidine-2'-carbonitrile;
    4-{[5-bromo-4-[(4-fluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-
yl]methyl}benzonitrile;
    4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-3,5-dichlorobenzenesulfonamide;
    3-acetyl-5-{ [5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-
oxopyrimidin-1(6H)-yl]methyl}-1-glycoloyl-1,3-dihydro-2H-
benzimidazol-2-one;
    3-acetyl-5-\{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-
oxopyrimidin-1(6H)-yl]methyl}-1-(2-hydroxy-2-methylpropanoyl)-
1,3-dihydro-2H-benzimidazol-2-one;
```

```
3-acety1-5-{[5-chloro-4-[(2,4-difluorobenzy1)oxy]-6-
oxopyrimidin-1(6H)-yl]methyl}-1-(N-methylglycyl)-1,3-dihydro-2H-
benzimidazol-2-one;
    3-acetyl-5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-
oxopyrimidin-1(6H)-yl]methyl}-1-(3-hydroxypropanoyl)-1,3-dihydro-
2H-benzimidazol-2-one;
    3-[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-yl]propanamide;
    3-[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-yl]propanoic
acid:
    3-[4-[(2,4-difluorobenzy1)oxy]-2-methyl-6-oxopyrimidin-1(6H)-
yl]-4-methylbenzoic acid;
    3-[4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-
yl]benzaldehyde;
    3-acetyl-5-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-2,3-dihydro-1H-benzimidazole-1-
    3-acetyl-5-\{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-
oxopyrimidin-1(6H)-yl]methyl}-2,3-dihydro-1H-benzimidazole-1-
carboxamide;
    3-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzoic acid;
    3-\{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]methyl}benzamide;
    3-{[5-chloro-4-[(2,4-difluorobenzyl)amino]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzonitrile;
    5-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N,N-dimethylpyrazine-2-carboxamide;
    5-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-(2-hydroxyethyl)-N-
methylpyrazine-2-carboxamide;
    5-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-(2,3-dihydroxypropyl)pyrazine-2-
carboxamide;
    5-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-methylpyrazine-2-carboxamide;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1,3-dihydro-2H-indol-2-one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}indoline-1-carboxamide;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1,3-dihydro-2H-isoindole-2-carboxamide;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3,4-dihydroisoquinoline-2(1H)-carboxamide;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-2,3-dihydro-1H-benzimidazole-1-carboxamide;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-glycoloyl-2,3-dihydro-1H-benzimidazole-1-
carboxamide;
```

5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-

benzimidazol-2-one;

```
1(6H)-yl]methyl}-3-(2-hydroxy-2-methylpropanoyl)-2,3-dihydro-1H-
benzimidazole-1-carboxamide;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-(N-methylglycyl)-2,3-dihydro-1H-benzimidazole-
1-carboxamide;
    5-{[3-chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxopyrimidin-
1(2H)-yl]methyl}-3-(3-hydroxypropanoyl)-2,3-dihydro-1H-
benzimidazole-1-carboxamide:
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-(3-hydroxy-3-methylbutanoyl)-2,3-dihydro-1H-
benzimidazole-1-carboxamide;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1H-benzimidazole-1,3(2H)-dicarboxamide;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-(methylsulfonyl)-2,3-dihydro-1H-benzimidazole-
1-carboxamide;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1,3-dihydro-2H-benzimidazol-2-one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1-qlycoloyl-1,3-dihydro-2H-benzimidazol-2-one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1-(2-hydroxy-2-methylpropanoyl)-1,3-dihydro-2H-
benzimidazol-2-one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1-(N-methylglycyl)-1,3-dihydro-2H-benzimidazol-
2-one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1-(3-hydroxypropanoyl)-1,3-dihydro-2H-
benzimidazol-2-one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1-(3-hydroxy-3-methylbutanoyl)-1,3-dihydro-2H-
benzimidazol-2-one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-2-oxo-2,3-dihydro-1H-benzimidazole-1-
carboxamide;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1-(methylsulfonyl)-1,3-dihydro-2H-benzimidazol-
2-one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1,3-diglycoloyl-1,3-dihydro-2H-benzimidazol-2-
one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-qlycoloyl-1-(2-hydroxy-2-methylpropanoyl)-1,3-
dihydro-2H-benzimidazol-2-one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
```

5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]methyl}-3-glycoloyl-1-(3-hydroxypropanoyl)-1,3-dihydro-

1(6H)-yl]methyl}-3-glycoloyl-1-(N-methylglycyl)-1,3-dihydro-2H-

```
2H-benzimidazol-2-one;
     5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-qlycoloyl-1-(3-hydroxy-3-methylbutanoyl)-1,3-
dihydro-2H-benzimidazol-2-one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-glycoloyl-2-oxo-2,3-dihydro-1H-benzimidazole-
1-carboxamide;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-glycoloyl-1-(methylsulfonyl)-1,3-dihydro-2H-
benzimidazol-2-one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1-qlycoloyl-3-(2-hydroxy-2-methylpropanoyl)-1,3-
dihydro-2H-benzimidazol-2-one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1,3-bis(2-hydroxy-2-methylpropanoyl)-1,3-
dihydro-2H-benzimidazol-2-one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-(2-hydroxy-2-methylpropanoyl)-1-(N-
methylglycyl) -1, 3-dihydro-2H-benzimidazol-2-one;
     5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-(2-hydroxy-2-methylpropanoyl)-1-(3-
hydroxypropanoyl)-1,3-dihydro-2H-benzimidazol-2-one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl methyl\left\{-1-(3-hydroxy-3-methylbutanoyl)-3-(2-hydroxy-2-methylbutanoyl)\right\}
methylpropanoyl) -1, 3-dihydro-2H-benzimidazol-2-one;
     5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-y1] methyl\left\{-3-(2-hydroxy-2-methylpropanoy1)-2-oxo-2,3-\right\}
dihydro-1H-benzimidazole-1-carboxamide;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-(2-hydroxy-2-methylpropanoyl)-1-
(methylsulfonyl)-1,3-dihydro-2H-benzimidazol-2-one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1-glycoloyl-3-(N-methylglycyl)-1,3-dihydro-2H-
benzimidazol-2-one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1-(2-hydroxy-2-methylpropanoyl)-3-(N-
methylglycyl)-1,3-dihydro-2H-benzimidazol-2-one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1,3-bis(N-methylglycyl)-1,3-dihydro-2H-
benzimidazol-2-one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1-(3-hydroxypropanoyl)-3-(N-methylglycyl)-1,3-
dihydro-2H-benzimidazol-2-one;
     5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1-(3-hydroxy-3-methylbutanoyl)-3-(N-
methylglycyl)-1,3-dihydro-2H-benzimidazol-2-one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-y1] methy1\}-3-(N-methylglycyl)-2-oxo-2,3-dihydro-1H-
benzimidazole-1-carboxamide;
```

```
5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-(N-methylglycyl)-1-(methylsulfonyl)-1,3-
dihydro-2H-benzimidazol-2-one;
     5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1-glycoloyl-3-(3-hydroxypropanoyl)-1,3-dihydro-
2H-benzimidazol-2-one;
     5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1-(2-hydroxy-2-methylpropanoyl)-3-(3-
hydroxypropanoyl)-1,3-dihydro-2H-benzimidazol-2-one;
     5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-(3-hydroxypropanoyl)-1-(N-methylqlycyl)-1,3-
dihydro-2H-benzimidazol-2-one;
     5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1,3-bis(3-hydroxypropanoyl)-1,3-dihydro-2H-
benzimidazol-2-one;
     5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl] methyl\left\{-1-(3-hydroxy-3-methylbutanoyl)-3-(3-methylbutanoyl)\right\}
hydroxypropanoyl)-1,3-dihydro-2H-benzimidazol-2-one;
     5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-y1] methyl\left\{-3-(3-hydroxypropanoy1)-2-oxo-2,3-dihydro-1H-\right\}
benzimidazole-1-carboxamide;
     5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-(3-hydroxypropanoyl)-1-(methylsulfonyl)-1,3-
dihydro-2H-benzimidazol-2-one;
     5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H) - yl] methyl - 1 - qlycoloyl - 3 - (3 - hydroxy - 3 - methylbutanoyl) - 1, 3 -
dihydro-2H-benzimidazol-2-one;
     5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-(3-hydroxy-3-methylbutanoyl)-1-(2-hydroxy-2-
methylpropanoyl)-1,3-dihydro-2H-benzimidazol-2-one;
     5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-(3-hydroxy-3-methylbutanoyl)-1-(N-
methylglycyl)-1,3-dihydro-2H-benzimidazol-2-one;
     5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl] methyl\left\{-3-(3-hydroxy-3-methylbutanoyl)-1-(3-methylbutanoyl)\right\}
hydroxypropanoyl) -1, 3-dihydro-2H-benzimidazol-2-one;
     5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1,3-bis(3-hydroxy-3-methylbutanoyl)-1,3-dihydro-
2H-benzimidazol-2-one;
     5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-(3-hydroxy-3-methylbutanoyl)-2-oxo-2,3-
dihydro-1H-benzimidazole-1-carboxamide;
     5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-(3-hydroxy-3-methylbutanoyl)-1-
(methylsulfonyl)-1,3-dihydro-2H-benzimidazol-2-one;
     5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-2-oxo-1H-benzimidazole-1,3(2H)-dicarboxamide;
     5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1-glycoloyl-3-(methylsulfonyl)-1,3-dihydro-2H-
```

```
benzimidazol-2-one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1-(2-hydroxy-2-methylpropanoyl)-3-
(methylsulfonyl) -1, 3-dihydro-2H-benzimidazol-2-one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1-(N-methylglycyl)-3-(methylsulfonyl)-1,3-
dihydro-2H-benzimidazol-2-one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1-(3-hydroxypropanoyl)-3-(methylsulfonyl)-1,3-
dihydro-2H-benzimidazol-2-one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1-(3-hydroxy-3-methylbutanoyl)-3-
(methylsulfonyl)-1,3-dihydro-2H-benzimidazol-2-one;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H) - yl] methyl - 3 - (methylsulfonyl) - 2 - oxo - 2, 3 - dihydro - 1H -
benzimidazole-1-carboxamide;
    5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1,3-bis(methylsulfonyl)-1,3-dihydro-2H-
benzimidazol-2-one;
    4-chloro-3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N-methylbenzamide;
    5-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]indoline-1-carboxamide;
    5-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-1H-indole-1-carboxamide;
    5-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-1,3-dihydro-2H-isoindole-2-carboxamide;
    5-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-1H-benzimidazole-1-carboxamide;
    5-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-3-glycoloyl-2,3-dihydro-1H-benzimidazole-
1-carboxamide;
    5-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-3-(2-hydroxy-2-methylpropanoyl)-2,3-
dihydro-1H-benzimidazole-1-carboxamide;
    5-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-3-(N-methylqlycyl)-2,3-dihydro-1H-
benzimidazole-1-carboxamide;
    5-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-3-(3-hydroxypropanoyl)-2,3-dihydro-1H-
benzimidazole-1-carboxamide;
    5-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-3-(3-hydroxy-3-methylbutanoyl)-2,3-
dihydro-1H-benzimidazole-1-carboxamide;
    5-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-1H-benzimidazole-1,3(2H)-dicarboxamide;
    5-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-3-(methylsulfonyl)-2,3-dihydro-1H-
benzimidazole-1-carboxamide;
```

```
5-\{[4-(benzyloxy)-6-oxopyrimidin-1(6H)-yl]methyl\}-5-
methylimidazolidine-2,4-dione;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluorophenyl)-2-
[2-(2,4-difluorophenyl)ethyl]-4-oxo-3,4-dihydropyrimidine-1(2H)-
carbaldehyde;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluorophenyl)-2-
methyl-4-oxo-3,4-dihydropyrimidine-1(2H)-carbaldehyde;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluorophenyl)-2-
methyl-4-oxo-3,4-dihydropyrimidine-1(2H)-carbaldehyde oxime;
    5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluorophenyl)-2-
methyl-4-oxo-3,4-dihydropyrimidine-1(2H)-carbonitrile;
    5-bromo-4-[(2,4-difluorobenzyl)oxy]-1-(2,6-difluorophenyl)-6-
oxo-1,6-dihydropyrimidine-2-carbaldehyde;
    5-bromo-4-[(2,4-difluorobenzyl)oxy]-1-(2,6-difluorophenyl)-6-
oxo-1,6-dihydropyrimidine-2-carboxylic acid;
    5-chloro-3-(2,6-dichlorobenzyl)-N-(2,4-difluorophenyl)-4-oxo-
3,4-dihydropyrimidine-1(2H)-carboxamide;
    5-chloro-3-(2,6-dichlorobenzyl)-N-methyl-4-oxo-N-phenyl-3,4-
dihydropyrimidine-1(2H)-carboxamide;
    N-benzyl-5-chloro-3-(2,6-dichlorobenzyl)-4-oxo-3,4-
dihydropyrimidine-1(2H)-carboxamide;
    6-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-glycoloyl-2-oxo-2,3-dihydro-1H-benzimidazole-
1-carboxamide:
    6-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-(2-hydroxy-2-methylpropanoyl)-2-oxo-2,3-
dihydro-1H-benzimidazole-1-carboxamide;
    6-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
benzimidazole-1-carboxamide;
    6-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-(3-hydroxypropanoyl)-2-oxo-2,3-dihydro-1H-
benzimidazole-1-carboxamide:
    6-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-y1] methyl-3-(3-hydroxy-3-methylbutanoy1)-2-oxo-2,3-
dihydro-1H-benzimidazole-1-carboxamide;
    6-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-y1] methyl\left\{-3-(methylsulfonyl)-2-oxo-2,3-dihydro-1H-1
benzimidazole-1-carboxamide;
    6-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1-(methylsulfonyl)-1,3-dihydro-2H-benzimidazol-
2-one;
    6-oxo-2-pyridin-3-yl-1,6-dihydropyrimidine-5-carbonitrile;
    6-oxo-2-pyridin-3-yl-1,6-dihydropyrimidine-5-carboxylic acid;
    7-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-3,4-dihydroisoquinoline-2(1H)-carboxamide;
    benzyl (5-nitro-2,6-dioxo-3,6-dihydropyrimidin-1(2H)-
yl)acetate;
    benzyl N-[(benzyloxy)carbonyl]-3-[4-(benzyloxy)-6-
```

```
oxopyrimidin-1(6H)-yl]alaninate;
    benzyl N-acetyl-3-[4-(benzyloxy)-6-oxopyrimidin-1(6H)-
vllalaninate:
    ethyl [4-(benzyloxy)-6-oxopyrimidin-1(6H)-yl]acetate;
    ethyl [4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-yl]acetate;
    ethyl 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzoate;
    ethyl 3-[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
vllpropanoate;
    ethyl 6-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]nicotinate;
    N-(3-aminopropy1)-4-\{[5-bromo-4-[(2,4-difluorobenzy1)oxy]-2-
methyl-6-oxopyrimidin-1(6H)-yl]methyl}benzamide hydrochloride;
    N-[3-(2,6-dichlorobenzyl)-4-oxo-5-(trifluoromethyl)-3,4-
dihydropyrimidin-1(2H)-yl]-4-isopropoxybenzamide;
    N-[5-bromo-1-(3-fluorobenzyl)-6-oxo-1,6-dihydropyrimidin-4-
yl]-1-phenylmethanesulfonamide;
    N-[5-bromo-1-(3-fluorobenzyl)-6-oxo-1,6-dihydropyrimidin-4-
yl]-2,4-difluorobenzamide;
    N-[5-bromo-1-(3-fluorobenzyl)-6-oxo-1,6-dihydropyrimidin-4-
yl]-2,5-difluorobenzamide:
    N-[5-bromo-1-(3-fluorobenzyl)-6-oxo-1,6-dihydropyrimidin-4-
yl]-2,6-difluorobenzamide;
    N-[5-bromo-1-(3-fluorobenzyl)-6-oxo-1,6-dihydropyrimidin-4-
vl]-4-fluorobenzamide;
    N-[5-bromo-1-(3-fluorobenzyl)-6-oxo-1,6-dihydropyrimidin-4-
yl]benzenesulfonamide;
    N-[5-bromo-1-(3-fluorobenzyl)-6-oxo-1,6-dihydropyrimidin-4-
yl]-N'-(2,4-difluorophenyl)urea;
    N-[1-acetyl-3-(4-chlorobenzyl)-2-methyl-4-oxo-1,2,3,4-
tetrahydropyrimidin-5-yl]-4-chlorobenzamide;
    N' - \{ [(3-benzyl-4-oxo-3, 4-dihydropyrimidin-1(2H) -
yl) carbonyl] oxy } pyridine-4-carboximidamide;
    N-(3-\{[5-bromo-4-[(2,4-difluorobenzyl)] -2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)acetamide;
    5-chloro-3-(2,6-dichlorobenzyl)-4-oxo-N-[3-
(trifluoromethyl)phenyl]-3,4-dihydropyrimidine-1(2H)-carboxamide;
    6-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-3,4-dihydroisoquinoline-2(1H)-carboxamide;
    6-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-3-glycoloyl-2,3-dihydro-1H-benzimidazole-
1-carboxamide;
    6-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-3-(2-hydroxy-2-methylpropanoyl)-2,3-
dihydro-1H-benzimidazole-1-carboxamide;
    6-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-3-(N-methylglycyl)-2,3-dihydro-1H-
benzimidazole-1-carboxamide;
    6-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
```

carboxamide;

```
oxopyrimidin-1(6H)-yl]-3-(3-hydroxypropanoyl)-2,3-dihydro-1H-
benzimidazole-1-carboxamide;
    6-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-3-(3-hydroxy-3-methylbutanoyl)-2,3-
dihydro-1H-benzimidazole-1-carboxamide;
    6-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-3-(methylsulfonyl)-2,3-dihydro-1H-
benzimidazole-1-carboxamide:
    6-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3,4-dihydroisoquinoline-2(1H)-carboxamide;
    6-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-2,3-dihydro-1H-benzimidazole-1-carboxamide;
    6-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-glycoloyl-2,3-dihydro-1H-benzimidazole-1-
carboxamide;
    6-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-(2-hydroxy-2-methylpropanoyl)-2,3-dihydro-1H-
benzimidazole-1-carboxamide;
    6-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-(N-methylqlycyl)-2,3-dihydro-1H-benzimidazole-
1-carboxamide;
    6-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-(3-hydroxypropanoyl)-2,3-dihydro-1H-
benzimidazole-1-carboxamide;
    6-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-(3-hydroxy-3-methylbutanoyl)-2,3-dihydro-1H-
benzimidazole-1-carboxamide;
    6-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-3-(methylsulfonyl)-2,3-dihydro-1H-benzimidazole-
1-carboxamide:
    6-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1-glycoloyl-1,3-dihydro-2H-benzimidazol-2-one;
    6-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1-(2-hydroxy-2-methylpropanoyl)-1,3-dihydro-2H-
benzimidazol-2-one;
    6-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1-(N-methylglycyl)-1,3-dihydro-2H-benzimidazol-
2-one;
    6-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1-(3-hydroxypropanoyl)-1,3-dihydro-2H-
benzimidazol-2-one;
    6-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-1-(3-hydroxy-3-methylbutanoyl)-1,3-dihydro-2H-
benzimidazol-2-one;
    6-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
```

N- $(3-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]methyl\}benzyl)methanesulfonamide;$

1(6H)-yl]methyl}-2-oxo-2,3-dihydro-1H-benzimidazole-1-

```
N-(3-\{[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)-2-hydroxyacetamide;
    N' - \{3 - [5 - bromo - 4 - [(2, 4 - difluorobenzyl)) oxy] - 2 - methyl - 6 -
oxopyrimidin-1(6H)-yl]benzyl}-N,N-dimethylurea;
    N-\{3-[5-bromo-4-[(2,4-difluorobenzyl)] -2-methyl-6-
oxopyrimidin-1(6H)-yl]benzyl}methanesulfonamide;
    N-\{3-[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzyl}acetamide;
    N-\{3-[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzyl}urea;
    N-(2-aminoethyl)-4-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-
methyl-6-oxopyrimidin-1(6H)-yl]methyl}benzamide hydrochloride;
    N-(3-aminopropy1)-3-[5-bromo-4-[(2,4-difluorobenzy1)oxy]-2-
methyl-6-oxopyrimidin-1(6H)-yl]benzamide hydrochloride;
    N-(3-aminopropyl)-3-[4-(benzyloxy)-5-bromo-6-oxopyrimidin-
1(6H)-yl]propanamide hydrochloride;
    N-(3-aminopropyl)-3-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-
methyl-6-oxopyrimidin-1(6H)-yl]methyl}benzamide hydrochloride;
    N-(3-aminopropy1)-4-[5-bromo-4-[(2,4-difluorobenzy1)oxy]-2-
methyl-6-oxopyrimidin-1(6H)-yl]benzamide hydrochloride;
    N-\{3-[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzyl}-2-methoxyacetamide;
    N-\{3-[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzyl}-2-hydroxyacetamide;
    N-\{3-[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzyl}-N'-methylurea;
    N-\{3-[5-bromo-4-[(2,4-difluorobenzyl)] -2-methyl-6-
oxopyrimidin-1(6H)-yl]benzyl}morpholine-4-carboxamide;
    N-(4-\{[5-chloro-4-[(2,4-difluorobenzyl)] -2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}phenyl)-2-hydroxyacetamide;
    N-(4-\{[5-chloro-4-[(2,4-difluorobenzyl)] -2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}phenyl)acetamide;
    N^{1}-{3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzyl}qlycinamide hydrochloride;
    N-allyl-2-[(3-benzyl-4-oxo-3,4-dihydropyrimidin-1(2H)-
yl) carbonyl] hydrazinecarbothioamide;
                           3-\{[4-(benzyloxy)-6-oxopyrimidin-1(6H)-
    tert-butyl
yl]methyl}piperidine-1-carboxylate;
    tert-butyl 3-{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]methyl}piperidine-1-carboxylate;
    tert-butyl 4-[5-bromo-1-(3-fluorobenzyl)-6-oxo-1,6-
dihydropyrimidin-4-yl]piperazine-1-carboxylate;
    tert-butyl 4-[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]piperidine-1-carboxylate;
    tert-butyl 4-{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]methyl}piperidine-1-carboxylate;
    ethyl 5-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}pyrazine-2-carboxylate;
    ethyl 5-{[5-chloro-4-{(2,4-difluorobenzyl)oxy]-2-methyl-6-
```

```
oxopyrimidin-1(6H)-yl]methyl}pyrazine-2-carboxylate;
    ethyl N-(5-\{[5-bromo-4-[(2,4-difluorobenzyl)]oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-2-methylpyrimidin-4-yl)glycinate
trifluoroacetate;
    methyl N-acetyl-3-[4-(benzyloxy)-6-oxopyrimidin-1(6H)-
yl]alaninate;
    N-(2-aminoethyl)-3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-
methyl-6-oxopyrimidin-1(6H)-yl]benzamide hydrochloride;
    N-(2-aminoethyl)-3-[4-(benzyloxy)-5-bromo-6-oxopyrimidin-
1(6H)-yl]propanamide hydrochloride;
    N-(2-aminoethy1)-3-\{[5-bromo-4-[(2,4-difluorobenzy1)oxy]-2-
methyl-6-oxopyrimidin-1(6H)-yl]methyl}benzamide hydrochloride;
    N-(2-aminoethyl)-4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-
methyl-6-oxopyrimidin-1(6H)-yl]benzamide hydrochloride;
    methyl 4-{[5-bromo-1-(3-fluorobenzyl)-6-oxo-1,6-
dihydropyrimidin-4-yl]amino}benzoate;
    methyl 4-{[4-(benzyloxy)-6-oxopyrimidin-1(6H)-
yl]methyl}benzoate;
    methyl 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-methylbenzoate;
    methyl 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-fluorobenzoate;
    methyl 3-[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]propanoate;
    methyl 3-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-
oxopyrimidin-1(6H)-yl]methyl}benzoate;
    methyl 5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidine-1(6H)-carboxylate;
    methyl 3-chloro-4-[4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzoate;
    methyl 4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-3-chlorobenzoate;
    methyl 4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzoate;
    methyl {3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzyl}carbamate;
    methyl 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzoate;
    methyl 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-methylbenzoate;
    methyl 4-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-
oxopyrimidin-1(6H)-yl]benzoate;
    methyl (2E)-4-[4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]but-2-enoate;
    methyl [2-(\{[5-bromo-1-(2,6-difluorophenyl)-2-methyl-6-oxo-
1,6-dihydropyrimidin-4-yl]oxy}methyl)-3,5-
difluorobenzyl]carbamate; or
    methyl 2-{[5-bromo-4-[(4-fluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}benzoate.
```

Further representative compounds of the invention are

Example 1	CH ₃	
Examples 3-10	R ₁ N O	
Example No.	R_1	R ₂
Ex. 3	- Н	4-Br
Ex. 4	-Br	4-Br
Ex. 5	-Н	4-Cl
Ex. 6	-Br	4-Cl
Ex. 7	-Н	3-F
Ex. 8	-Br	3-F
Ex. 9	-H	2-F
Ex. 10	-Br	2-F

5

Examples 12-19	O R1 N O R2	:
Example No.	R ₁	R ₂
Ex. 12	-Br	4-benzyloxy
Ex. 13	-Н	4-CO ₂ Me
Ex. 14	-Br	4-CO₂Me
Ex. 15	-Br	4 - CO ₂ H

Ex. 16	- H	4 - CN
Ex. 17	-Br	4 - CN
Ex. 18	-H	4-tButyl
Ex. 19	-Br	4-tButyl

Exa	mples 60-69	F O N R
Exa	mple No.	R
Ex.	60	pyridin-4-ylmethyl
Ex.	61	pyridin-3-ylmethyl
Ex.	62	4-tert-butylbenzyl
Ex.	63	3-trifluoromethylbenzyl
Ex.	64	Biphenyl-2-ylmethyl
Ex.	65	4-methoxybenzyl
Ex.	66	4-cyanobenzyl
Ex.	67	4-trifluoromethylbenzyl
Ex.	68	Biphenyl-4-ylmethyl
Ex.	69	cyclohexylmethyl

Examples 89- 101.	F O N R	
Example No.	R	
Ex. 89	pyridin-3-ylmethyl	

Ex.	90	pyridin-4-ylmethyl
Ex.	91	pyridin-2-ylmethyl
Ex.	92	4-tert-butyl)benzyl
Ex.	93	3-methoxybenzyl
Ex.	94	Benzo[1,3]dioxol-5-ylmethyl
Ex.	95	2-fluorobenzyl

Examples 115- 123	$R = \begin{pmatrix} 0 & N & N & N & N & N & N & N & N & N &$
Example No.	R
Ex. 115	3-methoxy
Ex. 116	4-tert-butyl
Ex. 117	3-methyl
Ex. 118	4-trifluoromethyl
Ex. 119	4-cyano
Ex. 120	2-methyl
Ex. 121	2-phenyl
Ex. 122	4-methoxy
Ex. 123	2-CO ₂ CH ₃

Examples 161- 168	F O N R
Example No.	R
Ex. 161	-NH ₂

Ex.	162	morpholin-4-yl
Ex.	163	dimethylamino
Ex.	164	isopropylamino
Ex.	165	piperidin-1-yl
Ex.	166	(2-hydroxyethyl)amino
Ex.	167	bis(2-hydroxyethyl)amino
Ex.	168	piperazin-1-yl

Examples 170- 174	F O N H N R
Example No.	R
Ex. 170	-C (O) CH ₃
Ex. 171	-C(O)OCH ₃
Ex. 172	-SO ₂ CH ₃
Ex. 173	-C(O)CH ₂ OH
Ex. 174	-C(O)NH ₂

Examples 175- 185	F O N R
Example No.	R
Ex. 175	-CH ₂ NHCH (CH ₃) ₂
Ex. 176	morpholin-4-ylmethyl
Ex. 177	-CH ₂ N (CH ₃) ₂
Ex. 178	piperidin-1-ylmethyl

Ex.	179	[bis(2-hydroxyethyl)amino]methyl
Ex.	180	-CH ₂ NHCH ₂ CH ₂ OH
Ex.	181	piperazin-1-ylmethyl
Ex.	182	-CH ₂ NHC(O)OCH ₃
Ex.	183	-CH ₂ NHC (O) CH ₃
Ex.	184	-CH ₂ NHSO ₂ CH ₃
Ex.	185	-CH ₂ NHC (O) NH ₂

Examples 188- 193	FON NH R
Compound No.	R
Ex. 188	CH₂OCOCH₃
Ex. 189	C(CH ₃) ₂ OH
Ex. 190	C (-CH ₂ CH ₂ -)OH
Ex. 191	CH ₂ NH ₂
Ex. 192	CH ₂ OH
Ex. 193	CH ₂ NHCOCH ₃

Example 216-231	5-bromo-6- (2,4- difluorobenzy loxy)-2- methyl-3-[4- (aminocarbony l)benzyl]pyri midin-4(3H)- ones	F O N N N R ₂
Compound No.	R ₁	R_2
D. 016	CH ₂ CH ₂ NH-	CH ₂ CH ₂ NH~
Ex. 216		
Ex. 217	н	CH ₂ CH ₂ NH ₂
Ex. 218	Н	CH ₂ CH ₂ CH ₂ NH ₂

Ex.	219	н	ОН
Ex.	220	Н	CH ₃
Ex.	221	CH ₃	CH ₃
Ex.	222	CH ₂ CH ₂ O-	CH ₂ CH ₂ O-
Ex.	223	CH₂CH₂OH	CH₂CH₂OH
Ex.	224	CH ₂ CH ₂ CH ₂ -	CH ₂ CH ₂ CH ₂ -
Ex.	225	н	CH (CH ₃) ₂
Ex.	226	CH ₂ CH ₂ -	CH ₂ CH ₂ -
Ex.	227	CH ₂ CH ₂ N (CH ₃) -	CH ₂ CH ₂ N (CH ₃) -
Ex.	228	Н	CH ₂ CH ₂ N (CH ₃) ₂
Ex.	229	Н	CH ₂ CH ₂ OCH ₃
Ex.	230	CH ₃	CH ₂ CH ₂ OH
Ex.	231	CH ₃	CH ₂ CH ₂ OCH ₃

Examples 233- 243	F F O Br	R_1
Compound No.	R_1	R_2
Ex. 233	CH ₂ CH ₂ NH-	CH ₂ CH ₂ NH-
Ex. 234	Н	CH ₂ CH ₂ NH ₂
Ex. 235	н	CH ₂ CH ₂ CH ₂ NH ₂
Ex. 236	Н	ОН
Ex. 237	Н	CH ₃
Ex. 238	CH ₃	CH ₃
Ex. 239	CH ₂ CH ₂ O-	CH ₂ CH ₂ O-
Ex. 240	CH ₂ CH ₂ OH	CH₂CH₂OH
Ex. 241	CH ₂ CH ₂ CH ₂ -	CH ₂ CH ₂ CH ₂ -
Ex. 242	Н	CH (CH ₃) ₂

Ex. 243 CH ₂ CH ₂ -	CH ₂ CH ₂ -
---	-----------------------------------

Examples 250- 261	F F O N N N N N N N N N N N N N N N N N	R_1 R_2
Compound No.	R_1	R ₂
Ex. 250	CH ₂ CH ₂ NH-	CH ₂ CH ₂ NH-
Ex. 251	Н	CH ₂ CH ₂ NH ₂
Ex. 252	н	CH ₂ CH ₂ CH ₂ NH ₂
Ex. 253	н	ОН
Ex. 254	CH ₃	CH ₃
Ex. 255	Н	CH ₃
Ex. 256	CH ₂ CH ₂ O-	CH ₂ CH ₂ O-
Ex. 257	н	CH₂CH₂OH
Ex. 258	CH ₂ CH ₂ OH	CH₂CH₂OH
Ex. 259	CH ₂ CH ₂ CH ₂ -	CH ₂ CH ₂ CH ₂ -
Ex. 260	Н	CH (CH ₃) ₂
Ex. 261	CH ₂ CH ₂ -	CH ₂ CH ₂ -

Example 263-265 HCl in dioxane to afford the compounds as hydrochloride salts.	
Compound No.	R

Ex. 263	CH ₂ NH ₂
Ex. 264	CH₂NHCOCH₃
Ex. 265	CH ₂ OCOCH ₃

Example 268-270	F F O N N N N N N N N N N N N N N N N N	H N O N 2 R ₁
Compound No.	R ₁	R ₂
Ex. 268	CH ₂ CH ₂ N-	CH ₂ CH ₂ N-
Ex. 269	н	CH ₃
Ex. 270	CH ₂ CH ₂ O-	CH ₂ CH ₂ O-

Example 274-289	F F O N R ₂ N	N- ^R 1
Compound No.	R1	R2
Ex. 274	CH2CH2NH-	CH2CH2NH-
Ex. 275	Н	CH2CH2NH2
Ex. 276	н	CH2CH2CH2NH2
Ex. 277	н	он
Ex. 278	СНЗ	СНЗ

Ex. 279	СН2СН2О-	CH2CH2O-
Ex. 280	Н	СН2СН2ОН
Ex. 281	СН2СН2СН2-	CH2CH2CH2-
Ex. 282	н	СН (СНЗ) 2.
Ex. 283	СН2СН2-	CH2CH2-
Ex. 284	CH2CH2N(CH3)-	CH2CH2N(CH3)-
Ex. 285	Н	CH2CH2N (CH3) 2
Ex. 286	Н	СН2СН2ОСН3
Ex. 287	СНЗ	CH2CH2N (CH3) 2
Ex. 288	СНЗ	СН2СН2ОН
Ex. 289	СН3	СН2СН2ОСН3

Example 295-296	F F O N HN R
Compound No.	R
Ex. 295	CH ₃
Ex. 296	OCH ₃

Examples 298- 300	F F O N HN R
Compound No.	R
Ex. 298	CH ₂ OCOCH ₃
Ex. 299	CH ₂ NH ₂

Ex.	300	CH ₂ OH

Examples 302- 303	F F O N N N R ₁ R ₂	
Compound No.	R ₁	R ₂
Ex. 302	Н	CH₃
Ex. 303	CH ₂ CH ₂ O-	CH ₂ CH ₂ O-

Examp 337	oles 329-	F O N O R
Examp	le No.	R
Ex. 3	29	-NHCH2CH2OCH3
Ex. 3	30	-N(CH ₃) ₂
Ex. 3	31	-NHCH ₂ CH ₂ OH
Ex. 3	32	-NHCH ₃
Ex. 3	33	-N (CH ₃) CH ₂ CH ₂ OH
Ex. 3	34	4-methylpiperazin-1-yl
Ex. 3	35	morpholin-4-yl
Ex. 3	36	-N (CH ₃) CH ₂ CH ₂ OCH ₃
Ex. 3	37	-NH ₂

5

Examples 425- 427, 429-435, 436-437	R ₃	R ₂ R		Br N	x `Y =z′			
Ex.No.	R ₁	R ₂	R ₃	R ₄	R ₅	Х	Y	Z
425	Н	Н	F	Н	Н	N	CH	CH
426	F	Н	F	Н	F	N	CH	CH
427	F	Н	Н	Н	F	N	CH	CH
429	Н	Н	F	H	Н	CH	N	CH
430	F	H	F	Н	F	CH	N	CH
431	F	Н	Н	Н	Н	CH	N	CH
432	F	H	F	F	H	CH	N	CH
433	F	H	Cl	Н	Н	CH	N	CH
434	Cl	Н	F	Н	Н	CH	N	СН
435	F	Н	Н	Н	F	CH	N	СН
436	Н	Н	F	Н	Н	CH	СН	N
437	F	Н	F	H	F	CH	CH	N
438	F	Н	F	F	Н	CH	CH	N

Examples 473-476	F Br O R
Compound No.	R
Ex. 473	-CO₂H
Ex. 474	- CH ₂ OH
Ex. 475	C (O) NH (CH ₂) ₂ OCH ₃
Ex. 476	C(O)NHCH ₃

Examples 488- 491	F O N N O R
Compound No.	R

Ex.	488	-NH (CH ₂) ₂ OCH ₃
Ex.	489	-NHCH ₃
Ex.	490	-N(CH ₃) ₂
Ex.	491	-morpholine

Examples 509- 518	F O CI O R1 N R2	
Example No.	R_1	R_2
Ex. 509	CH ₃	CH ₃
Ex. 510	Н	CH ₂ CH ₂ OH
Ex. 511	CH ₂ CH ₂ N (CH ₃) -	CH ₂ CH ₂ N (CH ₃) -
Ex. 512	CH ₂ CH ₂ O-	CH ₂ CH ₂ O-
Ex. 513	Н	CH ₂ CH ₂ OCH ₃
Ex. 514	CH ₃	CH ₂ CH ₂ OH
Ex. 515	Н	CH ₂ CH ₂ CH ₂ OH
Ex. 516	Н	CH ₂ CH (OH) CH ₂ OH
Ex. 517	Н.	C (CH ₃) ₂ CH ₂ OH-
Ex. 518	CH ₂ CH ₂ NH-	CH ₂ CH ₂ NH-

Examples 525- 528	F CI O H N R
Ex. No.	R

Ex. 525	-C (O) CH ₃	
Ex. 526	-C(O)CH ₂ OCH ₃	
Ex. 527	-SO ₂ CH ₃	
Ex. 528	-C(O)NH ₂	

Examples 531- 551	F O CI N O F NH O R
Compound No.	R
Ex. 531	-OCH ₃
Ex. 532	-CF ₃
Ex. 533	-O-isopropyl
Ex. 534	-NH-CH ₂ CH ₃
Ex. 535	-O-tetrahydrofuran-3-yl
Ex. 536	-O-propyl
Ex. 537	-O-CH ₂ CH=CH ₂
Ex. 538	-O-CH ₂ C≡CH
Ex. 539	-O-tButyl
Ex. 540	-NH-tButyl
EX. 541	-SO ₂ CH ₂ CH ₂ CH ₃
Ex. 542	-SO ₂ CH ₂ CH ₃
Ex. 543	-NH-isopropyl
Ex. 544	-CH₂OCH₃
Ex. 545	-NHCH ₃
Ex. 546	-N(CH ₃)(tButyl)
Ex. 547	-NH(cyclopropyl)
Ex. 548	-NHCH ₂ CF ₃
Ex. 549	NHCH2(cyclopropyl)

Ex.	550	-NHCH ₂ (tButyl)
Ex.	551	-N (CH ₃) ₂

Example 601-603	F O Br O R1 N R2	•
Compound No.	R ₁	R_2
Ex. 601	CH ₂ CH ₂ O-	CH ₂ CH ₂ -
Ex. 602	CH ₃	CH ₂ CH ₂ OH
Ex. 603	Н	CH ₂ C (CH ₃) ₂ OH

Examples 614-616	F P N N N N N N N N N N N N N N N N N N
Compound No.	R
Ex. 614	СН₂ОН
Ex. 615	CH₂OCOCH₃
Ex. 616	SO ₂ N(CH ₃) ₂

5

Example 618-620	F P P P P P P P P P P P P P P P P P P P
Compound No.	R
Ex. 618	CH ₂ OH
Ex. 619	CH ₂ OCOCH ₃
Ex. 620	SO ₂ N (CH ₃) ₂

Other representative compounds of the invention are

```
methyl 3-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-
oxopyrimidin-1(6H)-yl]methyl}benzoate;
```

methyl 4-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6oxopyrimidin-1(6H)-yl]methyl}benzoate;

3-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]methyl}benzamide;

4-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]methyl}benzamide;

3-(3-Aminomethyl-2-fluorobenzyl)-5-bromo-6-(2,4-difluorobenzyloxy)-3H-pyrimidin-4-one;

methyl 3-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6oxopyrimidin-1(6H)-yl]methyl}-2-fluorobenzoate;

3-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]methyl}-2-fluorobenzamide;

5-bromo-6-(2,4-difluorobenzyloxy)-3-(3-fluorobenzyl)-3H-pyrimidin-4-one;

5-bromo-3-(3-fluorobenzyl)-6-(2,3,4-trifluorobenzyloxy)-3H-pyrimidin-4-one;

3-[3-(2-aminoethyl) benzyl]-5-bromo-6-(2,4-difluorobenzyloxy)-3H-pyrimidin-4-one;

6-(benzyloxy)-5-bromopyrimidin-4(3H)-one;

5-chloro-6-(2,4-difluorobenzyloxy)-3-(3-fluorobenzyl)-3H-pyrimidin-4-one;

5-bromo-6-(3-chlorobenzyloxy)-3-(3-fluorobenzyl)-3H-pyrimidin-4-one;

5-bromo-6-(3,4-difluorobenzyloxy)-3-(3-fluorobenzyl)-3H-pyrimidin-4-one;

5-bromo-3-(3-fluorobenzyl)-6-(4-fluorobenzyloxy)-3H-pyrimidin-4-one;

5-bromo-3-(3-fluorobenzyl)-6-(3-fluorobenzyloxy)-3H-

```
pyrimidin-4-one;
     5-bromo-3-(3-fluorobenzyl)-6-(2-hydroxymethylbenzyloxy)-
3H-pyrimidin-4-one;
     2-(2-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}phenyl)acetamide;
     ethyl (3-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-
oxopyrimidin-1(6H)-yl]methyl}phenyl)acetate;
     2-(3-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl phenyl) acetamide;
     6-(2,4-difluorobenzyloxy)-3-(3-fluorobenzyl)-5-methyl-3H-
pyrimidin-4-one;
     6-(2,4-difluorobenzyloxy)-3-(3-fluorobenzyl)-5-iodo-3H-
pyrimidin-4-one;
     4-[(2,4-difluorobenzyl)oxy]-1-(3-fluorobenzyl)-6-oxo-1,6-
dihydropyrimidine-5-carbonitrile;
     3-cyclohexyl-6-(2,4-difluorobenzyloxy)-2,5-dimethyl-3H-
pyrimidin-4-one;
     5-chloro-6-(2,4-difluorobenzyloxy)-2-methyl-3-(1H-pyrazol-
4-ylmethyl)-3H-pyrimidin-4-one;
     4-\{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-6]
yl]methyl}benzonitrile;
     3-\{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]methyl}benzonitrile;
     3-[4-(aminomethyl)benzyl]-6-(benzyloxy)-5-bromopyrimidin-
4(3H)-one;
     3-[3-(aminomethyl)benzyl]-6-(benzyloxy)-5-bromopyrimidin-
4(3H)-one;
     3-[2-(aminomethyl)benzyl]-6-(benzyloxy)-5-bromopyrimidin-
4(3H)-one;
     4-\{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]methyl}benzamide;
     3-\{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]methyl}benzamide;
     2-\{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]methyl}benzamide;
     methyl 3-{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]methyl}benzoate;
     methyl 4-{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]methyl}benzoate;
     4-[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]benzonitrile;
     2-[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]benzonitrile;
     (4-{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]methyl}phenyl)acetic acid
     2-\{[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzonitrile;
     3-\{[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzonitrile;
```

```
4-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzonitrile;
     4-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzamide;
     methyl 4-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzoate;
     methyl 3-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzoate;
     3-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzamide;
     2-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzamide
     3-[2-(aminomethyl)benzyl]-5-bromo-6-[(2,4-
difluorobenzyl) oxy] -2-methylpyrimidin-4(3H) -one;
     5-bromo-3-[3-(bromomethyl)benzyl]-6-[(2,4-
difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
     5-bromo-3-[4-(bromomethyl)benzyl]-6-[(2,4-
difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
     3-[4-(aminomethyl)benzyl]-5-bromo-6-[(2,4-
difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
     3-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzoic acid;
     4-(4-\{[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzoyl)piperazine-1-carboxamide;
     N-(4-\{[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)-2-methoxyacetamide;
     3-{4-[(4-acetylpiperazin-1-yl)carbonyl]benzyl}-5-bromo-6-
[(2,4-difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-(4-{[4-
(methylsulfonyl)piperazin-1-yl]carbonyl}benzyl)pyrimidin-4(3H)-
one;
     methyl 4-[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]benzoate;
     4-[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-yl]benzoic
acid;
     4-[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]benzamide;
     3-[4-(aminomethyl)phenyl]-6-(benzyloxy)-5-bromopyrimidin-
4 (3H) -one;
     6-(benzyloxy)-5-bromo-3-(4-methylbenzyl)pyrimidin-4(3H)-
one;
     6-(benzyloxy)-5-bromo-3-ethylpyrimidin-4(3H)-one;
     methyl 4-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-
oxopyrimidin-1(6H)-yl]benzoate;
     5-bromo-6-[(2,4-diflurorbenzyl)oxy]-3-[3-
(hydroxymethyl)phenyl]-2-methylpyrimidin-4(3H)-one;
     methyl 4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzoate;
     4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
```

```
oxopyrimidin-1(6H)-yl]benzoic acid;
     6-(benzyloxy)-3-(3-fluorobenzyl)-5-
(trifluoromethyl)pyrimidin-4(3H)-one;
     4-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzoic acid;
     5-bromo-6-[(2,4-diflurobenzyl)oxy]-3-[4-
(hydroxymethyl)benzyl]-2-methylpyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-diflurobenzyl)oxy]-3-[4-(1-hydroxy-1-
methylethyl)benzyl]-2-methylpyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-diflurobenzyl)oxy]-2-methyl-3-{4-}
[(methylamino)methyl]benzyl}pyrimidin-4(3H)-one;
     6-[(2,4-diflurobenzyl)oxy]-3-(4-methoxybenzyl)-2-
methylpyrimidin-4-(3H)-one;
     5-bromo-6-hydroxy-3-(4-hydroxybenzyl)pyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-diflurobenzyl)oxy]-3-(4-methoxybenzyl)-2-
methylpyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-diflurobenzyl)oxy]-3-(4-hydroxybenzyl)-2-
methylpyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-{4-[(4-hydroxy-4-
methylpiperidin-1-yl)carbonyl]benzyl}-2-methylpyrimidin-4(3H)-
     4-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-(2-hydroxy-2-
methylpropyl)benzamide;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3{4-[(4-
hydroxypiperidin-1-yl)carbonyl]benzyl}-2-methylpyrimidin-4(3H)-
one:
     4-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-(2-hydroxyethyl)benzamide;
     6-(benzyloxy)-5-bromo-3-methylpyrimidin-4(3H)-one
hydrobromide;
     6-(benzyloxy)-5-bromo-3-methylpyrimidin-4(3H)-one;
     4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N-(2-hydroxyethyl)benzamide;
     4-{[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-yl]methyl}-
N'-hydroxybenzenecarboximidamide;
     4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzamide;
     6-(benzyloxy)-5-bromo-3-[4-(morpholin-4-
ylcarbonyl) phenyl] pyrimidin-4(3H) -one;
     6-(Benzyloxy)-5-bromo-3-[4-(piperazin-1-
ylcarbonyl)phenyl]pyrimidin-4(3H)-one hydrochloride;
     4-[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-yl]-N-
hydroxybenzamide;
     methyl 4-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-
6-oxopyrimidin-1(6H)-yl]methyl}benzoate;
     3-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-methylbenzamide;
     6-(benzyloxy)-5-bromo-3-(piperidin-4-ylmethyl)pyrimidin-
```

```
4(3H)-one hydrochloride;
     6-(benzyloxy)-3-[4-(trifluoromethyl)benzyl]pyrimidin-
4 (3H) - one;
    N-(3-\{[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)-2-methoxyacetamide;
     N-(3-\{[5-bromo-4-[(2,4-difluorobenzyl)] -2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)-2-hydroxy-2-
methylpropanamide;
    N' - (3 - \{ [5-bromo-4-[(2, 4-difluorobenzyl)] ) - 2-methyl - 6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)-N,N-dimethylurea;
     N-(3-\{[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)-1-
hydroxycyclopropanecarboxamide;
     6-(benzyloxy)-5-bromo-3-[4-(trifluoromethyl)
benzyl]pyrimidin-4(3H)-one;
     3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzoic acid;
     ethyl 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzoate;
     3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N-methylbenzamide;
     6-(benzyloxy)-5-bromo-3-(piperidin-3-ylmethyl)pyrimidin-
4(3H)-one hydrochloride;
     6-(benzyloxy)-5-bromo-3-(2-thien-3-ylethyl)pyrimidin-
4(3H)-one;
     3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzamide;
     3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzoic acid;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[3-
(hydroxymethyl)phenyl]-2-methylpyrimidin-4(3H)-one;
     3-[3-(aminomethyl)phenyl]-5-bromo-6-[(2,4-
difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
     N-\{3-[5-bromo-4-[(2,4-difluorobenzyl)] -2-methyl-6-
oxopyrimidin-1(6H)-yl]benzyl}methanesulfonamide;
     N-\{3-[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzyl}-2-methoxyacetamide;
     6-(benzyloxy)-5-bromo-3-(2-thien-2-ylethyl)pyrimidin-
4 (3H) - one;
     N'-\{3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzyl}-N,N-dimethylurea;
     N-\{3-[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzyl}urea;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-{3-
[(dimethylamino)methyl]phenyl}-2-methylpyrimidin-4(3H)-one;
     N-\{4-[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]benzyl}acetamide;
     N-\{4-[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-6]
yl]benzyl}-2-hydroxyacetamide;
```

```
5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-(2-
morpholin-4-ylethyl)pyrimidin-4(3H)-one;
         ethyl 3-[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]propanoate;
         6-(benzyloxy)-5-bromo-3-[3-(trifluoromethyl)
benzyl]pyrimidin-4(3H)-one;
         methyl 3-[4-(benzyloxy)-5-bromo-6-oxopyrimidin-1(6H)-
yl]propanoate;
         N-[5-bromo-1-(3-fluorobenzyl)-6-oxo-1,6-dihydropyrimidin-
4-yl]-2,6-difluorobenzamide;
         5-bromo-3-(4-bromo-2,6-difluorophenyl)-6-[(2,4-
difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
         5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-(2,4,6-
trifluorophenyl)pyrimidin-4(3H)-one;
         5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-(2,4,6-
trifluorophenyl)pyrimidin-4(3H)-one;
         5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-(hydroxymethyl)-3-
(2,4,6-trifluorophenyl)pyrimidin-4(3H)-one;
         5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-(hydroxymethyl)-3-
(2,4,6-trifluorophenyl)pyrimidin-4(3H)-one;
         5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluoro-4-
morpholin-4-ylphenyl)-2-methylpyrimidin-4(3H)-one;
         5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[2,6-difluoro-4-(4-
methylpiperazin-1-yl)phenyl]-2-methylpyrimidin-4(3H)-one;
         6-(benzyloxy)-5-bromo-3-[2-(trifluoromethyl)
benzyl]pyrimidin-4(3H)-one;
         5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[2,6-difluoro-4-(4-
methylpiperazin-1-yl)phenyl]-2-methylpyrimidin-4(3H)-one;
         5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[4-(dimethylamino)-
2,6-difluorophenyl]-2-methylpyrimidin-4(3H)-one;
         5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-\{2,6-difluoro-4-[(2-bromo-6-[(2,4-difluorobenzyl)oxy]-3-\{2,6-difluoro-4-[(2-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenzyl)oxy]-3-[(2,6-difluorobenz
hydroxyethyl) (methyl) amino]phenyl}-2-methylpyrimidin-4(3H)-one;
         5-bromo-3-(3,5-dibromo-2,6-difluoro-4-hydroxyphenyl)-6-
[(2,4-difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
         2-\{4-[5-bromo-4-[(2,4-difluorobenzyl)] -2-methyl-6-
oxopyrimidin-1(6H)-yl]-3,5-difluorophenoxy}acetamide;
         5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[2,6-difluoro-4-(2-
hydroxyethoxy)phenyl]-2-methylpyrimidin-4(3H)-one;
         5-bromo-3-(2,6-difluorophenyl)-6-{[4-fluoro-2-
(hydroxymethyl)benzyl]oxy}-2-methylpyrimidin-4(3H)-one;
         5-chloro-3-(2,6-difluorophenyl)-6-{[4-fluoro-2-
(hydroxymethyl)benzyl]oxy}-2-methylpyrimidin-4(3H)-one;
         3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-2-methyl-N-(2-morpholin-4-
ylethyl)benzamide;
         6-(benzyloxy)-3-[4-(trifluoromethoxy)benzyl]pyrimidin-
4 (3H) - one;
         5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[3-(hydroxymethyl)-
2-methylphenyl]-2-methylpyrimidin-4(3H)-one;
```

```
3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N-(2-methoxyethyl)-2-methylbenzamide;
     6-(benzyloxy)-5-bromo-3-[4-(trifluoromethoxy)
benzyl]pyrimidin-4(3H)-one;
     3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N,2-dimethylbenzamide;
     3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N-(2-hydroxyethyl)-2-methylbenzamide;
     3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-2-methylbenzamide;
     4-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]-3,5-difluorobenzonitrile;
     3-[4-(aminomethyl)-2,6-difluorophenyl]-5-chloro-6-[(2,4-
difluorobenzyl)oxy]pyrimidin-4(3H)-one hydrochloride;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{2,6-difluoro-4-
[(methylamino)methyl]phenyl}pyrimidin-4(3H)-one hydrochloride;
     5-chloro-3-(4-{[(cyclopropylmethyl)amino]methyl}-2,6-
difluorophenyl)-6-[(2,4-difluorobenzyl)oxy]pyrimidin-4(3H)-one
hydrochloride;
     4-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]-3,5-difluoro-N,N-dimethylbenzamide;
     4-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]-3-fluoro-5-methoxybenzonitrile;
     N-{4-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]-3,5-difluorobenzyl}urea;
     3-benzyl-6-(benzyloxy)-2-methylpyrimidin-4(3H)-one;
     2-({4-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-
oxopyrimidin-1(6H)-yl]-3,5-difluorobenzyl}amino)-1,1-dimethyl-
2-oxoethyl acetate;
     N-{4-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]-3,5-difluorobenzyl}acetamide;
     N-{4-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]-3,5-difluorobenzyl}-2-methoxyacetamide;
     N-{4-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]-3,5-difluorobenzyl}-2-furamide;
     N-{4-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]-3,5-difluorobenzyl}-1H-imidazole-4-carboxamide;
     N-{4-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]-3,5-difluorobenzyl}prolinamide;
     N-{4-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]-3,5-difluorobenzyl}-3-hydroxy-3-methylbutanamide;
     N-{4-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]-3,5-difluorobenzyl}-1-hydroxycyclopropanecarboxamide;
     N-{4-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]-3,5-difluorobenzyl}-2-hydroxy-2-methylpropanamide;
     4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]-3,5-difluorobenzonitrile;
     3-benzyl-6-(benzyloxy)-5-bromo-2-methylpyrimidin-4(3H)-
one;
```

```
5-bromo-3-(3-fluorobenzyl)-2-methyl-6-(2-
phenylethyl)pyrimidin-4(3H)-one;
     5-bromo-3-(3-fluorobenzyl)-6-(1-phenylethoxy)pyrimidin-
4 (3H) - one;
     5-bromo-3-(3-fluorobenzyl)-6-[(E)-2-(4-
fluorophenyl) ethenyl] pyrimidin-4 (3H) -one;
     6-(benzyloxy)-5-bromo-3-[(6-fluoropyridin-3-
yl) methyl] pyrimidin-4(3H) -one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-
dimethylphenyl) - 2-methylpyrimidin-4(3H)-one;
     5-bromo-3-(2,6-dimethylphenyl)-6-[(4-fluorobenzyl)oxy]-2-
methylpyrimidin-4(3H)-one;
     5-bromo-3-(2,6-dimethylphenyl)-2-methyl-6-[(2,4,6-
trifluorobenzyl)oxy]pyrimidin-4(3H)-one;
     5-bromo-6-[(2,6-difluorobenzyl)oxy]-3-(2,6-
dimethylphenyl) -2-methylpyrimidin-4(3H) -one;
     5-bromo-3-(2,6-dichlorophenyl)-6-[(4-fluorobenzyl)oxy]-2-
methylpyrimidin-4(3H)-one;
     5-bromo-3-(2,6-dichlorophenyl)-6-[(2,4-
difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
     3-benzyl-6-(benzyloxy)-1,5-dibromo-2-methylpyrimidin-
4 (3H) - one;
     5-bromo-3-(2,6-dichlorophenyl)-6-[(2,6-
difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2-methoxy-2-
methylphenyl) -2-methylpyrimidin-4(3H)-one;
     4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-3,5-dichlorobenzenesulfonamide;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-
difluorophenyl) -2-methylpyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-
difluorophenyl) -1-iodo-2-methylpyrimidin-4(1H) -one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[2-(dimethylamino)-
4,6-difluorophenyl]-2-methylpyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-{2,4-difluoro-6-[(2-
hydroxyethyl) (methyl) amino] phenyl \} - 2 - methyl pyrimidin - 4 (3H) - one;
     2-({[5-bromo-1-(2,6-difluorophenyl)-2-methyl-6-oxo-1,6-
dihydropyrimidin-4-yl]oxy}methyl)-5-fluorobenzonitrile;
     6-\{[2-(aminomethyl)-4-fluorobenzyl]oxy\}-5-bromo-3-(2,6-
difluorophenyl)-2-methylpyrimidin-4(3H)-one trifluoroacetate;
     N-[2-({[5-bromo-1-(2,6-difluorophenyl)-2-methyl-6-oxo-1,6-
dihydropyrimidin-4-yl]oxy}methyl)-5-fluorobenzyl]urea;
     3-benzyl-6-[(3-chlorobenzyl)oxy]-2-methylpyrimidin-4(3H)-
one;
     methyl [2-({[5-bromo-1-(2,6-difluorophenyl)-2-methyl-6-
oxo-1,6-dihydropyrimidin-4-yl]oxy\methyl)-5-
fluorobenzyl]carbamate;
     N-[2-({[5-bromo-1-(2,6-difluorophenyl)-2-methyl-6-oxo-1,6-
dihydropyrimidin-4-yl]oxy}methyl)-5-fluorobenzyl]-2-
```

```
hydroxyacetamide:
     ethyl [2-({[5-chloro-1-(2,6-difluorophenyl)-2-methyl-6-
oxo-1,6-dihydropyrimidin-4-yl]oxy}methyl)-5-
fluorobenzyl]carbamate;
     isobutyl [2-({[5-chloro-1-(2,6-difluorophenyl)-2-methyl-6-
oxo-1,6-dihydropyrimidin-4-yl]oxy\methyl)-5-
fluorobenzyl]carbamate;
     cyclopropylmethyl [2-({[5-chloro-1-(2,6-difluorophenyl)-2-
methyl-6-oxo-1,6-dihydropyrimidin-4-yl]oxy}methyl)-5-
fluorobenzyl]carbamate;
     3-[(4-amino-2-methylpyrimidin-5-yl)methyl]-5-bromo-6-
[(2,4-difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one
trifluoroacetate;
     3-[(4-amino-2-methylpyrimidin-5-yl)methyl]-5-bromo-6-
[(2,4-difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one
hydrochloride;
     3-[(4-amino-2-methylpyrimidin-5-yl)methyl]-5-chloro-6-
[(2,4-difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one
trifluoroacetate;
     3-[(4-amino-2-methylpyrimidin-5-yl)methyl]-5-chloro-6-
[(2,4-difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one
hydrochloride;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(1H-indazol-5-
ylmethyl) - 2-methylpyrimidin-4(3H) - one trifluoroacetate;
     3-benzyl-5-bromo-6-[(3-chlorobenzyl)oxy]-2-
methylpyrimidin-4(3H)-one;
     N^{1}-(5-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-2-methylpyrimidin-4-
yl)qlycinamide trifluoroacetate;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-{[2-
(methylthio)pyrimidin-4-yl]methyl}pyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-{[2-
(methylsulfonyl)pyrimidin-4-yl]methyl}pyrimidin-4(3H)-one;
     4-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}pyrimidine-2-carbonitrile
trifluoroacetate;
     6-\{[2-(aminomethyl)-4-fluorobenzyl]oxy\}-5-bromo-3-(2,6-
difluorophenyl)-2-methylpyrimidin-4(3H)-one trifluoroacetate;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[(2-
methoxypyrimidin-4-yl)methyl]-2-methylpyrimidin-4(3H)-one
trifluoroacetate;
     methyl 4-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}pyrimidine-2-carboxylate
trifluoroacetate;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[(2-
hydroxypyrimidin-4-yl)methyl]-2-methylpyrimidin-4(3H)-one
trifluoroacetate;
     4 - \{ [5-bromo-4-[(2,4-difluorobenzyl)] - 2-methyl-6- \} \}
oxopyrimidin-1(6H)-yl]methyl}pyrimidine-2-carboxamide
```

```
trifluoroacetate;
     methyl [(4-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-
6-oxopyrimidin-1(6H)-yl]methyl}pyrimidin-2-yl)methyl]carbamate;
     3-benzyl-6-[2,6-(dichlorobenzyl)oxy]pyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[(5-
methylpyrazin-2-yl)methyl]pyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-(pyrazin-2-
ylmethyl)pyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-{[5-
(hydroxymethyl)pyrazin-2-yl]methyl}-2-methylpyrimidin-4(3H)-
one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-({5-
[(dimethylamino)methyl]pyrazin-2-yl}methyl)-2-methylpyrimidin-
4(3H)-one trifluoroacetate;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[(5-{[(2-
hydroxyethyl) (methyl) amino] -methyl pyrazin-2-yl) methyl] -2-
methylpyrimidin-4(3H)-one trifluoroacetate;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-({5-[(4-
methylpiperazin-1-yl)carbonyl]pyrazin-2-yl}methyl)pyrimidin-
4(3H)-one trifluoroacetate;
      5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-({5-[(4-
methylpiperazin-1-yl)carbonyl]pyrazin-2-yl}methyl)pyrimidin-
4(3H)-one;
     5-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-(2-hydroxyethyl)-N-
methylpyrazine-2-carboxamide;
     5-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-(2,3-dihydroxypropyl)pyrazine-
2-carboxamide;
     5-\{[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-(2-hydroxyethyl)pyrazine-2-
carboxamide;
     3-Benzyl-5-bromo-6-[2,6-(dichlorobenzyl)oxy]pyrimidin-
4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-{[5-
(methoxymethyl)pyrazin-2-yl]methyl}-2-methylpyrimidin-4(3H)-
      5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-({5-[(2-
methoxyethoxy)methyl]pyrazin-2-yl}methyl)-2-methylpyrimidin-
4(3H)-one;
     (5-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}pyrazin-2-yl)methyl carbamate;
     3-benzyl-5-bromo-4-oxo-3,4-dihydropyrimidin-6-yl
methyl (phenyl) carbamate;
     6-(benzyloxy)-5-ethynyl-3-(3-fluorobenzyl)pyrimidin-4(3H)-
one;
     6-(benzylamino)-5-bromo-3-(3-fluorobenzyl)pyrimidin-4(3H)-
one;
     6-(benzyloxy)-3-(3-fluorobenzyl)-5-methylpyrimidin-4(3H)-
```

```
one;
     3-(3-fluorobenzyl)-6-[(4-fluorobenzyl)oxy]-5-
iodopyrimidin-4(3H)-one;
     3-(3-fluorobenzyl)-6-[(4-fluorobenzyl)oxy]-5-
methylpyrimidin-4(3H)-one;
     3-benzyl-5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-
methylpyrimidin-4(3H)-one;
     3-benzyl-6-[(2-chlorobenzyl)oxy]pyrimidin-4(3H)-one;
     N-[5-bromo-1-(3-fluorobenzyl)-6-oxo-1,6-dihydropyrimidin-
4-yl]-4-fluorobenzamide;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-
difluorophenyl) - 2-methylpyrimidin-4(3H)-one;
     5-bromo-3-(4-fluorobenzyl)-6-[(4-fluorobenzyl)amino]-2-
methylpyrimidin-4(3H)-one;
     5-bromo-3-(cyclopropylmethyl)-6-[(2,4-difluorobenzyl)oxy]-
2-methylpyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-(pyridin-4-
ylmethyl)pyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-(pyridin-3-
ylmethyl)pyrimidin-4(3H)-one;
     3-Benzyl-5-bromo-6-[(2-chlorobenzyl)oxy]pyrimidin-4(3H)-
one:
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-(pyridin-2-
ylmethyl)pyrimidin-4(3H)-one;
     5-bromo-6-[2-(4-fluorophenyl)ethyl]-2-methyl-3-(pyridin-3-
ylmethyl)pyrimidin-4(3H)-one;
     3-benzyl-5-bromo-6-[(4-methylbenzyl)oxy]pyrimidin-4(3H)-
one:
     5-bromo-6-[2-(4-fluorophenyl)ethyl]-2-methyl-3-(pyridin-4-
ylmethyl)pyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-(pyridin-
3-ylmethyl)pyrimidin-4(3H)-one;
     3-[(4-amino-2-methylpyrimidin-5-yl)methyl]-5-bromo-2-
methyl-6-[(2,4,6-trifluorobenzyl)oxy]pyrimidin-4(3H)-one
trifluoroacetate;
     5-bromo-6-\{(2,4-difluorobenzyl)oxy\}-2-methyl-3-\{[2-methyl-3-4]\}
4-(methylamino)pyrimidin-5-yl]methyl}pyrimidin-4(3H)-one
trifluoroacetate;
     ethyl N-(5-\{[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-
6-oxopyrimidin-1(6H)-yl]methyl}-2-methylpyrimidin-4-
yl)glycinate - trifluoroacetaldehyde (1:1);
     N-(5-\{[5-chloro-4-[(2,4-difluorobenzyl)] -2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-2-methylpyrimidin-4-yl)-2-
hydroxyacetamide trifluoroacetate;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[(5-
methylpyrazin-2-yl)methyl]pyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-({5-
[(methylamino)methyl]pyrazin-2-yl}methyl)pyrimidin-4(3H)-one
trifluoroacetate:
```

```
ethyl 5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}pyrazine-2-carboxylate;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-\{[5-
(hydroxymethyl)pyrazin-2-yl]methyl}-2-methylpyrimidin-4(3H)-
one;
     3-Benzyl-6-[(3-chlorobenzyl)oxy]pyrimidin-4(3H)-one;
     5-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N,N-dimethylpyrazine-2-
carboxamide:
     5-\{[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-methylpyrazine-2-carboxamide;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3{[5-(1-hydroxy-1-
methylethyl)pyrazin-2-yl]methyl}-2-methylpyrimidin-4(3H)-one;
     5-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-(2-methoxyethyl)pyrazine-2-
carboxamide;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-{[5-
(morpholin-4-ylcarbonyl)pyrazin-2-yl]methyl}pyrimidin-4(3H)-
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-({5-[(4-
hydroxypiperidin-1-yl)carbonyl]pyrazin-2-yl}methyl)-2-
methylpyrimidin-4(3H)-one;
     5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-(3-hydroxy-2,2-
dimethylpropyl)pyrazine-2-carboxamide;
     5-\{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-(2,2,2-trifluoroethyl)pyrazine-
2-carboxamide;
     3-allyl-5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-
methylpyrimidin-4(3H)-one;
     3-allyl-5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-
methylpyrimidin-4(3H)-one;
     3-benzyl-6-[benzylthio]-5-bromopyrimidin-4(3H)-one;
     methyl (2E)-4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-
methyl-6-oxopyrimidin-1(6H)-yl]but-2-enoate;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-prop-2-
ynylpyrimidin-4(3H)-one;
     6-[(2,4-difluorobenzyl)oxy]-2-(hydroxymethyl)-3-(pyridin-
3-ylmethyl)pyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-(hydroxymethyl)-3-
(pyridin-3-ylmethyl)pyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-
[(dimethylamino)methyl]-3-(pyridin-3-ylmethyl)pyrimidin-4(3H)-
one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-
difluorophenyl)-2-(hydroxymethyl)pyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-
difluorophenyl) -2- (hydroxymethyl) pyrimidin-4(3H) -one;
     5-bromo-4-[(2,4-difluorobenzyl)oxy]-1-(2,6-
```

```
difluorophenyl)-6-oxo-1,6-dihydropyrimidine-2-carbaldehyde;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-
difluorophenyl) - 2 - [(dimethylamino) methyl] pyrimidin - 4(3H) - one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-
difluorophenyl) - 2- (morpholin-4-ylmethyl) pyrimidin-4 (3H) - one;
    3-Benzyl-5-bromo-6-{[2-
(trifluoromethyl)benzyl]oxy}pyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-
difluorophenyl)-2-{[(2-methoxyethyl)amino]methyl}pyrimidin-
4(3H)-one;
     5-bromo-4-[(2,4-difluorobenzyl)oxy]-1-(2,6-
difluorophenyl)-6-oxo-1,6-dihydropyrimidine-2-carboxylic acid;
     methyl 4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl}-3-methylbenzoate;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-(2-methyl-
4-vinylphenyl)pyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[4-(1,2-
dihydroxyethyl) - 2 - methylphenyl] - 2 - methylpyrimidin - 4 (3H) - one;
     methyl 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-chlorobenzoate;
     3-benzyl-6-(benzyloxy)-5-iodopyrimidin-4(3H)-one;
     3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-chlorobenzoic acid;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[5-(hydroxymethyl)-
2-methylphenyl]-2-methylpyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[5-(hydroxymethyl)-
2-methylphenyl]-2-methylpyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[5-(hydroxymethyl)-
2-methylphenyl]-2-methylpyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-{5-}
[(dimethylamino)methyl]-2-methylphenyl}-2-methylpyrimidin-
4(3H)-one hydrochloride;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-{5-
[(isopropylamino)methyl]-2-methylphenyl}-2-methylpyrimidin-
4(3H)-one hydrochloride;
     3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N-(2-hydroxyethyl)-4-methylbenzamide;
     3-benzyl-6-(benzyloxy)-5-vinylpyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[5-(1-hydroxy-1-
methylethyl)-2-methylphenyl]-2-methylpyrimidin-4(3H)-one;
     methyl 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-methylbenzoate;
     methyl 4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-3-chlorobenzoate;
     5-bromo-6-[(2,4-difluorobenzyl)amino]-3-(3-
fluorobenzyl) pyrimidin-4(3H)-one;
     5-bromo-3-(3-fluorobenzyl)-6-{[3-
(trifluoromethyl)benzyl]amino}pyrimidin-4(3H)-one;
     5-bromo-3-(3-fluorobenzyl)-6-{[4-fluoro-2-
```

```
(trifluoromethyl)benzyl]amino}pyrimidin-4(3H)-one;
     5-bromo-6-[(4-chloro-2-fluorobenzyl)amino]-3-(3-
fluorobenzyl) pyrimidin-4(3H)-one;
     5-bromo-3-(3-fluorobenzyl)-6-[(3-
fluorobenzyl) amino] pyrimidin-4(3H) -one;
     3-benzyl-6-(benzyloxy)-5-ethylpyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)amino]-2-methyl-3-(pyridin-
4-ylmethyl)pyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)amino]-2-methyl-3-(pyridin-
3-ylmethyl)pyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)amino]-3-(2,6-
difluorophenyl) - 2-methylpyrimidin - 4 (3H) - one;
     5-chloro-6-[(2,4-difluorobenzyl)amino]-3-(2,6-
difluorophenyl)-2-methylpyrimidin-4(3H)-one;
     3-{[5-chloro-4-[(2,4-difluorobenzyl)amino]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzonitrile;
     4-{ [5-chloro-4-[(2,4-difluorobenzyl)amino]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzonitrile;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[2-fluoro-5-
(hydroxymethyl) phenyl] -2-methylpyrimidin-4(3H) -one;
     3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-fluorobenzoic acid;
     3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-fluoro-N-methylbenzamide;
     5-acetyl-6-(benzyloxy)-3-(2-chlorophenyl)-2-
methylpyrimidin-4(3H)-one;
     3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-fluorobenzoic acid;
     3-benzyl-5-bromo-6-(2-phenylethyl)pyrimidin-4(3H)-one;
     3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-methoxybenzoic acid;
     3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-methoxy-N-methylbenzamide;
     3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-methoxy-N, N-dimethylbenzamide;
     3-[5-(aminomethyl)-2-fluorophenyl]-5-chloro-6-[(2,4-
difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one hydrochloride;
     3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-fluoro-N-[2-hydroxy-1-
(hydroxymethyl) ethyl] benzamide;
     2-({[5-chloro-1-(2,6-difluorophenyl)-2-methyl-6-oxo-1,6-
dihydropyrimidin-4-yl]oxy}methyl)-5-fluorobenzonitrile;
     6-{[2-(aminomethyl)-4-fluorobenzyl]oxy}-5-chloro-3-(2,6-
difluorophenyl)-2-methylpyrimidin-4(3H)-one trifluoroacetate;
     5-bromo-3-(3-fluorobenzyl)-6-(2-phenylethyl)pyrimidin-
4 (3H) - one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-{[5-(1-hydroxy-1-
methylethyl)pyridin-2-yl]methyl}-2-methylpyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-{[5-
```

```
(hydroxymethyl)pyridin-2-yl]methyl}-2-methylpyrimidin-4(3H)-
one;
     6-{ [5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-(2-hydroxyethyl)-N-
methylnicotinamide;
     6-\{[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-(2-hydroxyethyl)nicotinamide;
     6-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N,N-dimethylnicotinamide;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[2-
(trifluoromethyl)phenyl]pyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-
difluorophenyl)-2-methyl-1-vinylpyrimidin-4(1H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-
difluorophenyl) -1-(1,2-dihydroxyethyl) -2-methylpyrimidin-4(1H) -
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-
difluorophenyl) -1-(hydroxymethyl) -2-methylpyrimidin-4(1H)-one;
     6-(benzyloxy)-5-bromo-3-(2,6-difluorophenyl)-2-
methylpyrimidin-4(3H)-one;
     [5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-
difluorophenyl) - 2-methyl - 4-oxo-3, 4-dihydropyrimidin - 1(2H) -
yl]methyl carbamate;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-
difluorophenyl)-2-methyl-4-oxo-3,4-dihydropyrimidine-1(2H)-
carbaldehyde;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-
difluorophenyl) - 2-methyl - 4-oxo-3, 4-dihydropyrimidine-1(2H) -
carbaldehyde oxime;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-
difluorophenyl)-2-methyl-4-oxo-3,4-dihydropyrimidine-1(2H)-
carbonitrile;
     6-(benzyloxy)-5-bromo-3-(2,6-difluorophenyl)-1-iodo-2-
methylpyrimidin-4(1H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-
difluorophenyl)-2-methyl-1-oxiran-2-ylpyrimidin-4(1H)-one;
     6-(benzylamino)-5-bromo-3-(2,6-difluorophenyl)-1-iodo-2-
methylpyrimidin-4(1H)-one;
     6-(benzyloxy)-5-ethynyl-3-(3-fluorobenzyl)pyrimidin-4(3H)-
one:
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-
difluorophenyl) -2-methyl-1-[(E)-2-phenylethenyl]pyrimidin-
4(1H)-one;
     6-(allylamino)-5-bromo-3-(2,6-difluorophenyl)-1-iodo-2-
methylpyrimidin-4(1H)-one;
     6-(allylamino)-3-(2,6-difluorophenyl)-1-iodo-2-
methylpyrimidin-4(1H)-one;
     6-(allylamino)-3-(2,6-difluorophenyl)-1-iodo-2-
methylpyrimidin-4(1H)-one;
```

```
ethyl 6-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]nicotinate;
         5-bromo-6-[(2,4-difluorobenzyl)oxy]-5'-(1-hydroxy-1-
methylethyl) -2-methyl-4H-3,2'-bipyrimidin-4-one;
         5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2-furylmethyl)-2-
methylpyrimidin-4(3H)-one;
         6-(benzylamino)-5-bromo-3-(3-fluorobenzyl)pyrimidin-4(3H)-
one:
         5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-(thien-2-
ylmethyl)pyrimidin-4(3H)-one;
         5-bromo-3-(2,6-difluorophenyl)-6-(2-furylmethoxy)-2-
methylpyrimidin-4(3H)-one;
         5-bromo-3-[2-fluoro-6-(3-furylmethoxy)phenyl]-6-(3-
furylmethoxy) -2-methylpyrimidin-4(3H)-one;
         5-bromo-3-[2-fluoro-6-(thien-3-ylmethoxy)phenyl]-2-methyl-
6-(thien-3-ylmethoxy)pyrimidin-4(3H)-one;
         methyl 2-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-[(methylamino)carbonyl]benzoate;
         3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-(1-hydroxy-1-methylethyl)-N-
methylbenzamide;
         4{[5-bromo-6-(2-furylmethoxy)-2-methyl-4-oxopyrimidin-
3(3H)-yl]methyl}benzamide;
          (-)-3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N,4-dimethylbenzamide;
          (+)-3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N,4-dimethylbenzamide;
         4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-3-chlorobenzamide;
         5-bromo-3-cyclopropylmethyl-6-(4-fluorobenzyloxy)-3H-
pyrimidin-4-one;
         3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-methylbenzamide;
         3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N,4-dimethylbenzamide;
         N-\{3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-fluorobenzyl}propanamide;
         N' - \{3 - [5 - chloro - 4 - [(2, 4 - difluorobenzyl)] - 2 - methyl - 6 - 4 - [(2, 4 - difluorobenzyl)] - 2 - methyl - 6 - 4 - [(2, 4 - difluorobenzyl)] - 2 - methyl - 6 - 4 - [(2, 4 - difluorobenzyl)] - 2 - methyl - 6 - 4 - [(2, 4 - difluorobenzyl)] - 2 - methyl - 6 - 4 - [(2, 4 - difluorobenzyl)] - 2 - methyl - 6 - 4 - [(2, 4 - difluorobenzyl)] - 2 - methyl - 6 - 4 - [(2, 4 - difluorobenzyl)] - 2 - methyl - 6 - 4 - [(2, 4 - difluorobenzyl)] - 2 - methyl - 6 - 4 - [(2, 4 - difluorobenzyl)] - 2 - methyl - 6 - 4 - [(2, 4 - difluorobenzyl)] - 2 - methyl - 6 - 4 - [(2, 4 - difluorobenzyl)] - 2 - methyl - 6 - 4 - [(2, 4 - difluorobenzyl)] - 2 - methyl - 6 - 4 - [(2, 4 - difluorobenzyl)] - 2 - methyl - 6 - 4 - [(2, 4 - difluorobenzyl)] - 2 - methyl - 6 - 4 - [(2, 4 - difluorobenzyl)] - 2 - [
oxopyrimidin-1(6H)-yl]-4-fluorobenzyl}-N,N-dimethylurea;
         N-\{3-[5-chloro-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-fluorobenzyl}-2-hydroxyacetamide;
         N-\{3-[5-chloro-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-fluorobenzyl}-2-hydroxy-2-
methylpropanamide;
         N^1-\{3-[5-chloro-4-[(2,4-difluorobenzyl)] oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-fluorobenzyl}glycinamide
hydrochloride;
         3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-fluorobenzamide;
```

```
3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-fluoro-N-methylbenzamide;
     3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-fluoro-N, N-dimethylbenzamide;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-{2-fluoro-5-[(4-
methylpiperazin-1-yl)carbonyl]phenyl}-2-methylpyrimidin-4(3H)-
one:
     methyl 4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-3-fluorobenzoate;
     4-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzoic acid;
     3-\{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzamide;
     3-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N,N-dimethylbenzamide;
     3-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-(2-hydroxy-2-
methylpropyl)benzamide;
     N-\{4-[5-bromo-4-[(2,4-difluorobenzyl)] -2-methyl-6-
oxopyrimidin-1(6H)-yl]benzyl}-2-hydroxyacetamide;
     3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]benzamide;
     3-(4-aminobenzyl)-5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-
methylpyrimidin-4(3H)-one;
     3-(3-aminobenzyl)-5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-
methylpyrimidin-4(3H)-one;
     N-(4-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}phenyl)acetamide;
     N-(3-\{[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}phenyl)acetamide;
     N-(4-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)-N'-methylurea;
     N-(4-\{[5-bromo-4-[(2,4-difluorobenzyl)] -2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)-N'-(2-hydroxy-2-
methylpropyl)urea;
     N-(4-\{[5-bromo-4-[(2,4-difluorobenzyl)]oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)piperidine-1-carboxamide;
     N-(4-\{[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)morpholine-4-carboxamide;
     N-(4-\{[5-bromo-4-[(2,4-difluorobenzyl)] -2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)piperazine-1-carboxamide;
     N-(4-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)-N'-(2-hydroxyethyl)urea;
     N' - (4 - \{ [5-bromo-4-[(2,4-difluorobenzyl)] ) ] - 2-methyl - 6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)-N,N-dimethylurea;
     N-(4-\{[5-bromo-4-[(2,4-difluorobenzyl)] -2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)-4-hydroxypiperidine-1-
carboxamide;
     4-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
```

```
oxopyrimidin-1(6H)-yl]methyl}-N,N-dimethylbenzenesulfonamide;
              4-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-(2-
hydroxyethyl) benzenesulfonamide;
              4-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-(2-hydroxy-2-
methylpropyl) benzenesulfonamide;
              5-chloro-6-(2,4-difluorobenzyloxy)-2-methyl-3-(1H-pyrazol-
3-ylmethyl)-3H-pyrimidin-4-one;
              5-chloro-6-(2,4-difluorobenzyloxy)-2-methyl-3-(2,3-
dihydro-1H-indol-5-ylmethyl)-3H-pyrimidin-4-one;
              5-\{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-1,3-dihydro-2H-indol-2-one;
              N-[(5-\{[5-bromo-4-[(2,4-difluorobenzyl)] -2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}pyrazin-2-yl)methyl]-N-
methylmethanesulfonamide;
              methyl [(5-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-
6-oxopyrimidin-1(6H)-yl]methyl}pyrazin-2-
yl) methyl] methylcarbamate;
              N-[(5-\{[5-bromo-4-[(2,4-difluorobenzyl)] -2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}pyrazin-2-yl)methyl]-2-hydroxy-
N, 2-dimethylpropanamide;
              5-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N-(2-hydroxy-2-
methylpropyl)pyrazine-2-carboxamide;
              3-[(5-Aminopyrazin-2-yl)methyl]-5-bromo-6-[(2,4-
difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one
trifluoroacetate:
              5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[(3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-methyl-3-meth
1,2,4-triazin-6-yl)methyllpyrimidin-4(3H)-one trifluoroacetate;
              5-bromo-6-[.(2,4-difluorobenzyl)oxy]-3-(1H-indazol-5-yl)-2-
methylpyrimidin-4(3H)-one;
              5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(1H-indazol-6-yl)-2-
methylpyrimidin-4(3H)-one;
              methyl (2-\{[(5-bromo-2-methyl-1-\{2-methyl-5-methyl-1-\{2-methyl-5-methyl-1-\{2-methyl-5-methyl-1-\{2-methyl-5-methyl-1-\{2-methyl-5-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-\{2-methyl-1-(methyl-1-(methyl-1-(methyl-1-(methyl-1-(methyl-1-(methyl-1-(methyl-1-(methyl-1-(methyl-1-(methyl-1-(methyl-1-(methyl-1-(methyl-1-(methyl-1-(methyl-1-(methyl-1-(methyl-1-(methyl-1-(methyl-1-(
 [(methylamino)carbonyl]phenyl}-6-oxo-1,6-dihydropyrimidin-4-
yl)oxy]methyl}-5-fluorobenzyl)carbamate;
              hydroxyethyl)amino]carbonyl}-2-methylphenyl)-2-methyl-6-oxo-
1,6-dihydropyrimidin-4-yl]oxy\methyl)-5-fluorobenzyl]carbamate;
              methyl [2-({[5-bromo-1-(5-{[(2-hydroxy-2-
methylpropyl)amino]carbonyl}-2-methylphenyl)-2-methyl-6-oxo-
1,6-dihydropyrimidin-4-yl]oxy\methyl)-5-fluorobenzyl]carbamate;
              methoxyethyl)amino]carbonyl}-2-methylphenyl)-2-methyl-6-oxo-
1,6-dihydropyrimidin-4-yl]oxy}methyl)-5-fluorobenzyl]carbamate;
              methyl {2-[({1-[5-(aminocarbonyl)-2-methylphenyl]-5-bromo-
2-methyl-6-oxo-1,6-dihydropyrimidin-4-yl\oxy)methyl]-5-
fluorobenzyl}carbamate;
```

```
N-[2-({[5-chloro-1-(2,6-difluorophenyl)-2-methyl-6-oxo-}
1,6-dihydropyrimidin-4-yl]oxy\methyl)-5-fluorobenzyl]-N'-
phenvlurea:
         3-thienylmethyl [2-({[5-chloro-1-(2,6-difluorophenyl)-2-
methyl-6-oxo-1,6-dihydropyrimidin-4-yl]oxy\methyl)-5-
fluorobenzyl]carbamate;
         ethyl (2-\{[(5-bromo-2-methyl-1-\{2-methyl-5-methyl-5-methyl-5-methyl-1-\{2-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-methyl-5-
[(methylamino)carbonyl]phenyl}-6-oxo-1,6-dihydropyrimidin-4-
yl)oxy]methyl}-5-fluorobenzyl)carbamate;
         3-[5-bromo-4-{[2-
({[(cyclopropylamino)carbonyl]amino}methyl)-4-
fluorobenzyl]oxy}-2-methyl-6-oxopyrimidin-1(6H)-yl]-N,4-
dimethylbenzamide;
         2-[2-({[5-bromo-1-(2,6-difluorophenyl)-2-methyl-6-oxo-1,6-
dihydropyrimidin-4-yl]oxy\methyl)-5-fluorophenoxy]-N-
ethylacetamide;
         methyl 3-[2-[(acetyloxy)methyl]-5-bromo-4-[(2,4-
difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoate;
         3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-(hydroxymethyl)-
6-oxopyrimidin-1(6H)-yl]-4-methylbenzoic acid;
          3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-(hydroxymethyl)-
6-oxopyrimidin-1(6H)-yl]-N-(2-hydroxyethyl)-4-methylbenzamide;
          3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-(hydroxymethyl)-
6-oxopyrimidin-1(6H)-yl]-N,4-dimethylbenzamide;
         3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-(hydroxymethyl)-
6-oxopyrimidin-1(6H)-yl]-4-methylbenzamide;
          (5-bromo-4-[(2,4-difluorobenzyl)oxy]-1-{2-methyl-5-}
[(methylamino)carbonyl]phenyl}-6-oxo-1,6-dihydropyrimidin-2-
yl) methyl acetate;
          (2E) -4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N-methylbut-2-enamide;
         methyl 5-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-2-furoate;
          3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-(hydroxymethyl)-N-methylbenzamide;
         2-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N,N'-dimethylterephthalamide;
         2-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N<sup>4</sup>-methylterephthalamide;
         methyl 4-(aminocarbonyl)-2-[5-bromo-4-[(2,4-
difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]benzoate;
         2-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N1,N1,N4-trimethylterephthalamide;
          2-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-[(methylamino)carbonyl]benzyl
carbamate:
          5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,6-difluoro-4-
vinylphenyl) - 2-methylpyrimidin - 4 (3H) - one;
          5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[4-(1,2-
```

```
dihydroxyethyl) -2,6-difluorophenyl] -2-methylpyrimidin-4(3H) -
one;
     4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-3,5-difluorobenzaldehyde;
     4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-3,5-difluorobenzyl carbamate;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-[(5-
methylpyrazin-2-yl)methyl]pyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[5-
(hydroxymethyl)pyrazin-2-yl]methyl}-2-methylpyrimidin-4(3H)-
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-(2,3-dihydro-1H-
indol-5-ylmethyl)pyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[(1-qlycoloyl-2,3-
dihydro-1H-indol-5-yl)methyl]-2-methylpyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-(1H-
pyrazol-3-ylmethyl)pyrimidin-4(3H)-one;
     3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N,4-dimethylbenzamide;
     3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-fluoro-N-methylbenzamide;
     4-chloro-3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-
6-oxopyrimidin-1(6H)-yl]-N-methylbenzamide;
     3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-fluorobenzamide;
     4-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-N,3-dimethylbenzamide;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[4-(1,2-
dihydroxyethyl) - 2-methylphenyl] - 2-methylpyrimidin - 4 (3H) - one;
     N-(4-\{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}phenyl)-2-hydroxyacetamide;
     N-(4-\{[5-chloro-4-[(2,4-difluorobenzyl)] -2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)-1-
hydroxycyclopropanecarboxamide;
     N-(4-\{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)-2-hydroxyacetamide;
     N-(4-\{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}phenyl)acetamide;
     ethyl [2-({[5-bromo-1-(2,6-difluorophenyl)-2-methyl-6-oxo-
1,6-dihydropyrimidin-4-yl]oxy\methyl)-5-fluorobenzyl]carbamate;
     3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-(2-hydroxyethyl)-
6-oxopyrimidin-1(6H)-yl]-N, 4-dimethylbenzamide;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[5-(2-hydroxyethyl)-
2-methylphenyl]-2-methylpyrimidin-4(3H)-one;
     5-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-2-(2-hydroxyethyl)-N,4-
dimethylbenzamide;
     3-[2-[(acetylamino)methyl]-5-bromo-4-[(2,4-
difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N,4-
```

```
dimethylbenzamide;
     3-ally1-5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-(1-
methylpiperidin-4-yl)pyrimidin-4(3H)-one;
     5-bromo-4-[(2,4-difluorobenzyl)oxy]-2,4'-dimethyl-2'-
(methylsulfonyl)-6H-1,5'-bipyrimidin-6-one;
     5-bromo-4-[(2,4-difluorobenzyl)oxy]-2,4'-dimethyl-6-oxo-
6H-1,5'-bipyrimidine-2'-carbonitrile;
     2'-(aminomethyl)-5-bromo-4-[(2,4-difluorobenzyl)oxy]-2,4'-
dimethyl-6H-1,5'-bipyrimidin-6-one;
     5-bromo-4-[(2,4-difluorobenzyl)oxy]-2'-
[(dimethylamino)methyl]-2,4'-dimethyl-6H-1,5'-bipyrimidin-6-
one:
     N-({5-bromo-4-[(2,4-difluorobenzyl)oxy]-2,4'-dimethyl-6-}
oxo-6H-1,5'-bipyrimidin-2'-yl}methyl)-2-hydroxyacetamide;
     5-bromo-4-[(2,4-difluorobenzyl)oxy]-2,4'-dimethyl-6-oxo-
6H-1,5'-bipyrimidine-2'-carboxylic acid;
     5-bromo-4-[(2,4-difluorobenzyl)oxy]-2,4'-dimethyl-6-oxo-
6H-1,5'-bipyrimidine-2'-carboxamide;
     tert-butyl (3-{[5-bromo-4-[(4-fluorobenzyl)oxy]-6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)carbamate;
     5-bromo-4-[(2,4-difluorobenzyl)oxy]-N,2,4'-trimethyl-6-
oxo-6H-1,5'-bipyrimidine-2'-carboxamide;
     N-(3-\{[5-chloro-4-[(2,4-difluorobenzyl)]oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)-2-hydroxyacetamide;
     N-(3-\{[5-chloro-4-[(2,4-difluorobenzyl)]oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)-1-
hydroxycyclopropanecarboxamide;
     4-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}benzyl carbamate;
     2-[(4-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl phenyl)amino]-1-methyl-2-oxoethyl
acetate;
     2-[(4-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}phenyl)amino]-1,1-dimethyl-2-
oxoethyl acetate;
     {1-[3-(aminocarbonyl)phenyl]-5-chloro-4-[(2,4-
difluorobenzyl)oxy]-6-oxo-1,6-dihydropyrimidin-2-yl}methyl
acetate
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-{[2-
(methylthio) pyrimidin-5-yl] methyl } pyrimidin-4 (3H) - one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-2-methyl-3-{[2-
(methylsulfonyl)pyrimidin-5-yl]methyl}pyrimidin-4(3H)-one;
     hydroxyethyl)amino]carbonyl}-2-methylphenyl)-2-methyl-6-oxo-
1,6-dihydropyrimidin-4-yl]oxy}methyl)-5-fluorobenzyl]carbamate;
     3-(3-Aminomethylbenzyl)-5-bromo-6-(4-fluorobenzyloxy)-3H-
pyrimidin-4-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[5-(1H-imidazol-2-
yl) -2-methylphenyl] -2-methylpyrimidin-4(3H) -one
```

```
trifluoroacetate;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[5-(5-hydroxy-1H-
pyrazol-3-y1)-2-methylphenyl]-2-methylpyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[5-(5-
hydroxyisoxazol-3-yl)-2-methylphenyl]-2-methylpyrimidin-4(3H)-
one:
     3-[4-\{[2-(\{[(cyclopropylamino)carbonyl]amino\}methyl)-4-
fluorobenzyl]oxy}-2-methyl-6-oxopyrimidin-1(6H)-yl]-N,4-
dimethylbenzamide;
     methyl 4-\{[4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-
pyrido[1,2-a]pyrimidin-1(9aH)-yl]methyl}benzoate;
     5-{ [5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-2-furamide;
     5-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-2-furamide;
     3-[3,5-bis(hydroxymethyl)phenyl]-5-bromo-6-[(2,4-
difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
     5-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]isophthalamide;
     3-[3,5-bis(1-hydroxy-1-methylethyl)phenyl]-5-bromo-6-
[(2,4-difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one;
     methyl 2-{[5-bromo-4-[(4-fluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}benzoate;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[4-
(hydroxymethyl)phenyl]-2-methylpyrimidin-4(3H)-one;
     5-bromo-6-[(2,4-difluorobenzyl)oxy]-3-[4-(1-hydroxy-1-
methylethyl)phenyl]-2-methylpyrimidin-4(3H)-one
     3-(5-amino-2-fluorophenyl)-5-bromo-6-[(2,4-
difluorobenzyl)oxy]-2-methylpyrimidin-4(3H)-one hydrochloride;
     N-\{3-[5-bromo-4-[(2,4-difluorobenzyl)] -2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-fluorophenyl}-2-hydroxyacetamide;
     N-\{3-[5-bromo-4-[(2,4-difluorobenzyl)]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-4-fluorophenyl}-2-hydroxy-2-
methylpropanamide;
     4-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]-3-fluoro-N, N-dimethylbenzamide;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[(1-qlycoloyl-2,3-
dihydro-1H-indol-5-yl)methyl]-2-methylpyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[1-(2-hydroxy-2-
methylpropanoyl)-2,3-dihydro-1H-indol-5-yl]methyl}-2-
methylpyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[1-
(methoxyacetyl)-2,3-dihydro-1H-indol-5-yl]methyl}-2-
methylpyrimidin-4(3H)-one;
     5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-
oxopyrimidin-1(6H)-yl]methyl}-N,N-dimethylindoline-1-
carboxamide;
     5-bromo-6-(4-fluorobenzyloxy)-3-(2-hydroxymethylbenzyl)-
3H-pyrimidin-4-one;
```

```
5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[(1-qlycoloyl-2,3-
dihydro-1H-indol-5-yl)methyl]pyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-[(1-glycoloyl-2,3-
dihydro-1H-indol-5-yl)methyl]pyrimidin-4(3H)-one;
     5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-{[1-
(methoxyacety1)-2,3-dihydro-1H-indol-5-yl]methyl}pyrimidin-
4 (3H) -one;
     5-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}-N,N-dimethylindoline-1-carboxamide;
     5-bromo-6-(2,4-difluorobenzyloxy)-3-[(4-
dimethylaminomethyl)benzyl]-3H-pyrimidin-4-one;
     5-bromo-6-(2,4-difluorobenzyloxy)-3-[3-
(isopropylaminomethyl)benzyl]-3H-pyrimidin-4-one;
     5-bromo-6-(2,4-difluorobenzyloxy)-3-[(3-
dimethylaminomethyl)benzyl]-3H-pyrimidin-4-one;
     5-bromo-6-(2,4-difluorobenzyloxy)-3-[(3-
methylaminomethyl)benzyl]-3H-pyrimidin-4-one;
     tert-butyl (3-\{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-
oxopyrimidin-1(6H)-yl]methyl}benzyl)carbamate;
     3-[(3-aminomethyl)benzyl]-5-bromo-6-(2,4-
difluorobenzyloxy) - 3H-pyrimidin-4-one;
     5-chloro-6-(2,4-difluorobenzyloxy)-3-[4-
(isopropylaminomethyl)benzyl]-3H-pyrimidin-4-one;
     5-chloro-6-(2,4-difluorobenzyloxy)-3-[(3-
methanesulfonyl)benzyl]-3H-pyrimidin-4-one;
     5-chloro-6-(2,4-difluorobenzyloxy)-3-[(4-
methanesulfonyl)benzyl]-3H-pyrimidin-4-one;
     4-{[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}benzamide;
     5-chloro-6-(2,4-difluorobenzyloxy)-3-isoquinolin-5-
ylmethyl-3H-pyrimidin-4-one;
     5-chloro-6-(2,4-difluorobenzyloxy)-3-(1,2,3,4-
tetrahydroisoquinolin-5-ylmethyl)-3H-pyrimidin-4-one;
     5-chloro-6-(2,4-difluorobenzyloxy)-3-(1H-indol-5-
ylmethyl) - 3H-pyrimidin - 4-one;
     3-(1-acetyl-1H-indol-5-ylmethyl)-5-chloro-6-(2,4-
difluorobenzyloxy) - 3H-pyrimidin-4-one;
     5-chloro-6-(2,4-difluorobenzyloxy)-3-(2,3-dihydro-1H-
indol-5-ylmethyl)-3H-pyrimidin-4-one;
     5-bromo-6-(2,4-difluorobenzyloxy)-3-(2,4-difluorobenzyl)-
3H-pyrimidin-4-one;
     (3-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}phenyl)acetonitrile;
     2-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-
1(6H)-yl]methyl}benzonitrile; or
     3-[(2-aminomethyl)benzyl)]-5-bromo-6-(2,4-
difluorobenzyloxy) - 3H-pyrimidin-4-one.
```

The above names were generated using ChemDraw Ultra version 6.0.2, which is commercially available from CambridgeSoft.com, Cambridge, MA; or ACD Namepro version 5.09, which is commercially available from ACDlabs.com.

1

Definitions

10

15

20

25

30

As used herein, the term "alkenyl" refers to straight and branched hydrocarbon groups having a designated number of carbon atoms and containing at least one carbon-carbon double bond. Examples of "alkenyl" include vinyl, allyl, and 2-methyl-3-heptene.

The term "alkoxy" represents an alkyl attached to the parent molecular moiety through an oxygen bridge. Examples of alkoxy groups include, for example, methoxy, ethoxy, propoxy and isopropoxy.

The term "thioalkoxy" represents an alkyl attached to the parent molecular moiety through a sulfur atom. Examples of thioalkoxy groups include, for example, thiomethoxy, thiopropoxy and thioisopropoxy.

As used herein, the term "alkyl" refers to straight and branched chain hydrocarbon chains having the designated number of carbon atoms. Examples of "alkyl" include methyl, ethyl, propyl, isopropyl, butyl, iso-, sec- and tert-butyl, pentyl, hexyl, heptyl, 3-ethylbutyl, and the like. "Cx-Cy alkyl" represents an alkyl group of the specified number of carbons. For example, C_1 - C_4 alkyl includes all alkyl groups that include at least one and no more than four carbon atoms. It also contains subgroups, such as, for example, C_2 - C_3 alkyl or C_1 - C_3 alkyl.

The term "aryl" refers to an aromatic hydrocarbon ring system containing at least one aromatic ring where the

aromatic ring is optionally fused or otherwise attached to other aromatic hydrocarbon rings or non-aromatic hydrocarbon rings. Examples of aryl groups include, for example, phenyl, 1,2,3,4-tetrahydronaphthalene, indanyl, naphthyl, and biphenyl. Preferred examples of aryl groups include phenyl and naphthyl. The most preferred aryl group is phenyl. groups herein are unsubstituted or, as specified, substituted in one or more substitutable positions with various groups. Thus, such aryl groups can be optionally 10 substituted with groups such as, for example, C₁-C₆ alkyl, C₁-C₆ alkoxy, halogen, hydroxy, cyano, nitro, amino, mono- or di-(C1- C_6) alkylamino, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, C_1 - C_6 haloalkyl, C_1 - C_6 haloalkoxy, amino(C₁-C₆)alkyl, mono- or di(C₁-C₆)alkylamino(C₁- C_6) alkyl.

The term "arylalkyl" refers to an aryl group, as defined 15 above, attached to the parent molecular moiety through an alkyl group, as defined above. Preferred arylalkyl groups include, benzyl, phenethyl, phenpropyl, and phenbutyl. preferred arylalkyl groups include benzyl and phenethyl. The most preferred arylalkyl group is benzyl. The aryl portions 20 are unsubstituted or, as of thes**e** groups specified, substituted in one or more substitutable positions with various groups. Thus, such aryl groups can be optionally substituted with groups such as, for example, C1-C6 alkyl, C1-C6 alkoxy, halogen, hydroxy, cyano, nitro, amino, mono- or di-(C1-25 C_6) alkylamino, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, C_1 - C_6 haloalkyl, C_1 - C_6 haloalkoxy, amino (C_1-C_6) alkyl, mono- or di (C_1-C_6) alkylamino (C_1-C_6) C_6) alkyl.

The term "arylalkoxy" refers to an aryl group, as defined 30 above, attached to the parent molecular moiety through an alkoxy group, as defined above. Preferred arylaloxy groups include, benzyloxy, phenethyloxy, phenpropyloxy, and

phenbutyloxy. The most preferred arylalkoxy group is benzyloxy.

1

"cycloalkyl" refers The term to a $C_3 - C_8$ cyclic hydrocarbon. Examples of cycloalkyl include cyclopropyl, cyclohexyl, cyclobutyl, cyclopentyl, cycloheptyl cyclooctyl. More preferred cycloalkyl groups include cyclopropyl.

The term "cycloalkylalkyl," as used herein, refers to a $C_3\text{-}C_8$ cycloalkyl group attached to the parent molecular moiety through an alkyl group, as defined above. Examples of cycloalkylalkyl groups include cyclopropylmethyl and cyclopentylethyl.

The terms "halogen" or "halo" indicate fluorine, chlorine, bromine, or iodine.

The term "heterocycloalkyl," refers to a non-aromatic 15 ring system containing at least one heteroatom selected from and wherein the nitrogen, oxygen, sulfur, non-aromatic heterocycle is attached to the core. The heterocycloalkyl ring may be optionally fused to or otherwise attached to other heterocycloalkyl aromatic heterocycles, 20 rings, aromatic hydrocarbons and/or non-aromatic hydrocarbon rings. Preferred heterocycloalkyl groups have from 3 to 7 members. Examples of heterocycloalkyl groups include, for example, piperazine, 1,2,3,4-tetrahydroisoquinoline, morpholine, piperidine, 25 tetrahydrofuran, pyrrolidine, pyrazole. Preferred and heterocycloalkyl groups include piperidinyl, piperazinyl, morpholinyl, and pyrolidinyl. The heterocycloalkyl groups herein are unsubstituted or, as specified, substituted in one or more substitutable positions with various groups. 30 such heterocycloalkyl groups can be optionally substituted with groups such as, for example, C_1 - C_6 alkyl, C_1 - C_6 alkoxy, halogen, hydroxy, cyano, nitro, amino, mono- or $di-(C_1-$

 C_6) alkylamino, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, C_1 - C_6 haloalkyl, C_1 - C_6 haloalkoxy, amino(C_1 - C_6) alkyl, mono- or di(C_1 - C_6) alkylamino(C_1 - C_6) alkyl.

The term "heteroaryl" refers to an aromatic ring system containing at least one heteroatom selected from nitrogen, 5 oxygen, and sulfur where the heteroaryl ring is optionally fused or otherwise attached to one or more heteroaryl rings, aromatic or non-aromatic hydrocarbon rings, heterocycloalkyl Examples of heteroaryl groups rings. include, for example, pyridine, furan, thiophene, 5,6,7,8-10 tetrahydroisoquinoline and pyrimidine. Preferred examples of heteroaryl groups include thienyl, benzothienyl, pyridyl, quinolyl, pyrazinyl, pyrimidyl, imidazolyl, benzimidazolyl, furanyl, benzofuranyl, thiazolyl, benzothiazolyl, isoxazolyl, 15 oxadiazolyl, isothiazolyl, benzisothiazolyl, triazolyl, tetrazolyl, pyrrolyl, indolyl, pyrazolyl, and benzopyrazolyl. Preferred heteroaryl groups include pyridyl. The heteroaryl groups herein are unsubstituted or, as specified, substituted in one or more substitutable positions with various groups. Thus, such heteroaryl groups can be optionally substituted 20 with groups such as, for example, C_1 - C_6 alkyl, C_1 - C_6 alkoxy, halogen, hydroxy, cyano, nitro, amino, mono- or di-(C1- C_6) alkylamino, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, C_1 - C_6 haloalkyl, C_1 - C_6 haloalkoxy, amino (C_1-C_6) alkyl, mono- or $di(C_1-C_6)$ alkylamino (C_1-C_6) 25 C_6) alkyl.

The term "heteroarylalkyl" refers to a heteroaryl group, as defined above, attached to the parent molecular moiety through an alkyl group, as defined above. Preferred heteroarylalkyl groups include, pyrazolemethyl, pyrazoleethyl, pyridylmethyl, pyridylethyl, thiazolemethyl, thiazoleethyl, imidazolemethyl, imidazoleethyl, thienylmethyl, thienylethyl, furanylmethyl, furanylethyl, isoxazolemethyl, isoxazoleethyl, pyrazinemethyl and pyrazineethyl. More preferred

15

20

25

30

heteroarylalkyl groups include pyridylmethyl and pyridylethyl. The heteroaryl portions of these groups are unsubstituted or, as specified, substituted in one or more substitutable positions with various groups. Thus, such heteroaryl groups can be optionally substituted with groups such as, for example, C_1 - C_6 alkyl, C_1 - C_6 alkoxy, halogen, hydroxy, cyano, nitro, amino, mono- or di- $(C_1$ - C_6) alkylamino, C_2 - C_6 alkenyl, C_1 - C_6 haloalkyl, C_1 - C_6 haloalkoxy, amino(C_1 - C_6) alkyl, mono- or di(C_1 - C_6) alkylamino(C_1 - C_6) alkyl.

If two or more of the same substituents are on a common atom, e.g., $di(C_1-C_6)$ alkylamino, it is understood that the nature of each group is independent of the other.

As used herein, the term "p38 mediated disorder" refers to any and all disorders and disease states in which p38 plays a role, either by control of p38 itself, or by p38 causing another factor to be released, such as but not limited to IL-1, IL-6 or IL-8. A disease state in which, for instance, IL-1 is a major component, and whose production or action, is exacerbated or secreted in response to p38, would therefore be considered a disorder mediated by p38.

As TNF-beta has close structural homology with TNF-alpha (also known as cachectin), and since each induces similar biologic responses and binds to the same cellular receptor, the synthesis of both TNF-alpha and TNF-beta are inhibited by the compounds of the invention and thus are herein referred to collectively as "TNF" unless specifically delineated otherwise.

Compounds of invention include the compounds of Formula I and their corresponding pharmaceutically acceptable acid and base addition salts. If the compound of the invention is obtained as an acid addition salt, the free base can be obtained by basifying a solution of the acid salt. Conversely, if the product is a free base, an addition salt,

15

20

25

30

particularly a pharmaceutically acceptable acid addition salt, may be produced by dissolving the free base in a suitable organic solvent and treating the solution with an acid, in accordance with conventional procedures for preparing such addition salts from base compounds.

Non-toxic pharmaceutically acceptable salts include, but of are not limited to salts inorganic acids hydrochloric, sulfuric, phosphoric, diphosphoric, hydrobromic, and nitric or salts of organic acids such as formic, citric, malic, maleic, fumaric, tartaric, succinic, acetic, lactic, methanesulfonic, p-toluenesulfonic, 2-hydroxyethylsulfonic, salicylic and stearic. Similarly, pharmaceutically acceptable cations include, but are not limited to sodium, potassium, calcium, aluminum, lithium and ammonium. Those skilled in the art will recognize wide variety of non-toxic pharmaceutically acceptable addition salts.

The compounds of this invention may contain one or more asymmetric carbon atoms, so that the compounds can exist in different stereoisomeric forms. These compounds can be, for example, racemates, chiral non-racemic mixtures or mixtures of In these situations, the single enantiomers, diastereomers. i.e., optically active forms, can be obtained by asymmetric synthesis or by resolution of the racemates or mixtures. Resolution of the racemates can be accomplished, for example, by conventional methods such as crystallization presence of a resolving agent; chromatography, using, example a chiral HPLC column; or derivatizing the racemic mixture with a resolving reagent to generate diastereomers, separating the diastereomers via chromatography or selective crystallization, and removing the resolving agent to generate the original compound in enantiomerically enriched form. of the above procedures can be repeated to increase the enantiomeric purity of a compound.

The compounds of the invention may exist as atropisomers, i.e., chiral rotational isomers. The invention encompasses the racemic and the resolved atropisomers. The following illustration generically shows a compound (Z) that can exist as atropisomers as well as its two possible atropisomers (A) and (B). This illustration also shows each of atropisomers (A) and (B) in a Fischer projection. In this illustration, R_1 , R_2 , and R_4 carry the same definitions as set forth for Formula 10 I, R_p is a substituent within the definition of R_5 , and R_p is a non-hydrogen substituent within the definition of R_5 .

When the compounds described herein contain olefinic double bonds or other centers of geometric asymmetry, and unless otherwise specified, it is intended that the compounds include the cis, trans, Z- and E- configurations. Likewise, all tautomeric forms are also intended to be included.

10

15

20

25

30

The compounds of general Formula I may be administered orally, topically, parenterally, by inhalation or spray or rectally in dosage unit formulations containing conventional non-toxic pharmaceutically acceptable carriers, adjuvants and vehicles. The term parenteral as used herein includes percutaneous, subcutaneous, intravascular (e.g., intravenous), intramuscular, or intrathecal injection or infusion techniques and the like. In addition, there is provided a pharmaceutical formulation comprising a compound of general Formula I and a pharmaceutically acceptable carrier. One or more compounds of general Formula I may be present in association with one or more non-toxic pharmaceutically acceptable carriers diluents and/or adjuvants, and if desired other pharmaceutical compositions containing ingredients. The compounds of general Formula I may be in a form suitable for oral use, for example, as tablets, troches, lozenges, aqueous or oily suspensions, dispersible powders or granules, emulsion, hard or soft capsules, or syrups or elixirs.

For oral administration, the pharmaceutical composition may be in the form of, for example, a tablet, hard or soft capsule, lozenges, dispensable powders, suspension, or liquid. The pharmaceutical composition is preferably made in the form of a dosage unit containing a particular amount of the active ingredient. Examples of such dosage units are tablets or capsules.

Compositions intended for oral use may be prepared according to any method known to the art for the manufacture of pharmaceutical compositions and such compositions may contain one or more agents selected from the group consisting of sweetening agents, flavoring agents, coloring agents and preservative agents in order to provide pharmaceutically elegant and palatable preparations. Tablets contain the active ingredient in admixture with non-toxic pharmaceutically

30

acceptable excipients that are suitable for the manufacture of tablets. These excipients may be for example, inert diluents, such as calcium carbonate, sodium carbonate, lactose, calcium phosphate or sodium phosphate; granulating and disintegrating agents, for example, corn starch, or alginic acid; binding agents, for example starch, gelatin or acacia, and lubricating agents, for example magnesium stearate, stearic acid or talc. The tablets may be uncoated or they may be coated by known techniques. In some cases such coatings may be prepared by 10 known techniques to delay disintegration and absorption in the gastrointestinal tract and thereby provide a sustained action over a longer period. For example, a time delay material such glyceryl monosterate orglyceryl distearate as employed.

1

Formulations for oral use may also be presented as hard gelatin capsules, wherein the active ingredient is mixed with an inert solid diluent, for example, calcium carbonate, calcium phosphate, or kaolin, or as soft gelatin capsules wherein the active ingredient is mixed with water or an oil medium, for example peanut oil, liquid paraffin or olive oil.

Formulations for oral use may also be presented as lozenges.

suspensions contain the active Aqueous materials in admixture with excipients suitable for the manufacture of aqueous suspensions. Such excipients are suspending agents, for example sodium carboxymethylcellulose, methylcellulose, hydropropyl-methylcellulose, sodium alginate, polyvinylpyrrolidone, gum tragacanth and gum dispersing or wetting agents may be a naturally-occurring phosphatide, for example, lecithin, or condensation products fatty alkylene oxide with acids, for polyoxyethylene stearate, or condensation products of ethylene long chain aliphatic alcohols, for oxide with

15

20

25

30

heptadecaethyleneoxycetanol, or condensation products ethylene oxide with partial esters derived from fatty acids and a hexitol such as polyoxyethylene sorbitol monooleate, or condensation products of ethylene oxide with partial esters 5 derived from fatty acids and hexitol anhydrides, for example polyethylene sorbitan monooleate. The aqueous suspensions may also contain one or more preservatives, for example ethyl, or n-propyl p-hydroxybenzoate, one or more coloring agents, one or more flavoring agents, and one or more sweetening agents, such as sucrose or saccharin.

Oily suspensions may be formulated by suspending the active ingredients in a vegetable oil, for example arachis oil, olive oil, sesame oil, or coconut oil, or in a mineral oil such as liquid paraffin. The oily suspensions may contain a thickening agent, for example beeswax, hard paraffin, or cetyl alcohol. Sweetening agents and flavoring agents may be added to provide palatable oral preparations. compositions may be preserved by the addition of an antioxidant such as ascorbic acid.

Dispersible powders and granules suitable for preparation of an aqueous suspension by the addition of water provide the active ingredient in admixture with a dispersing or wetting suspending agent and one or more preservatives. Suitable dispersing or wetting agents or suspending agents are exemplified by those already mentioned above. Additional excipients, for example sweetening, flavoring, and coloring agents, may also be present.

Pharmaceutical compositions of the invention may also be in the form of oil-in-water emulsions. The oily phase may be a vegetable oil or a mineral oil or mixtures of these. Suitable emulsifying agents may be naturally-occurring gums, for example gum acacia or gum tragacanth, naturally-occurring phosphatides, for example soy bean, lecithin, and esters or

25

30

fatty acids and partial esters derived from hexitol, anhydrides, for example sorbitan monooleate, and condensation products of the said partial esters with ethylene oxide, for example polyoxyethylene sorbitan monooleate. The emulsions may also contain sweetening and flavoring agents.

Syrups and elixirs may be formulated with sweetening for example glycerol, propylene glycol, sorbitol, Such formulations may also contain a glucose or sucrose. demulcent, a preservative, and flavoring and coloring agents. The pharmaceutical compositions may be in the form of a sterile injectable aqueous or oleaginous suspension. suspension may be formulated according to the known art using those suitable dispersing or wetting agents and suspending The sterile injectable agents that have been mentioned above. preparation may also be a sterile injectable solution or 15 suspension in a non-toxic parentally acceptable diluent or solvent, for example as a solution in 1,3-butanediol. the acceptable vehicles and solvents that may be employed are solution and isotonic sodium water, Ringer's In addition, sterile, fixed oils are conventionally 20 solution. employed as a solvent or suspending medium. For this purpose any bland fixed oil may be employed including synthetic mono-In addition, fatty acids such as oleic acid or diglycerides. find use in the preparation of injectables.

general Formula Ι mav The compounds of administered in the form of suppositories, e.g., for rectal administration of the drug. These compositions can be prepared by mixing the drug with a suitable non-irritating excipient that is solid at ordinary temperatures but liquid at the rectal temperature and will therefore melt in the rectum to release the drug. Such materials include cocoa butter and polyethylene glycols.

15

20

25

30

Compounds of general Formula I may be administered parenterally in a sterile medium. The drug, depending on the vehicle and concentration used, can either be suspended or dissolved in the vehicle. Advantageously, adjuvants such as local anesthetics, preservatives, and buffering agents can be dissolved in the vehicle.

The active ingredient may also be administered by injection (IV, IM, subcutaneous or jet) as a composition wherein, for example, saline, dextrose, or water may be used as a suitable carrier. The pH of the composition may be adjusted, if necessary, with suitable acid, base, or buffer. Suitable bulking, dispersing, wetting or suspending agents, including mannitol and PEG 400, may also be included in the composition. A suitable parenteral composition can also include a compound formulated as a sterile solid substance, including lyophilized powder, in injection vials. Aqueous solution can be added to dissolve the compound prior to injection.

For disorders of the eye or other external tissues, e.g., mouth and skin, the formulations are preferably applied as a topical gel, spray, ointment or cream, or as a suppository, containing the active ingredients in a total amount of, for example, 0.075 to 30% w/w, preferably 0.2 to 20% w/w and most preferably 0.4 to 15% w/w. When formulated in an ointment, the active ingredients may be employed with either paraffinic or a water-miscible ointment base.

Alternatively, the active ingredients may be formulated in a cream with an oil-in-water cream base. If desired, the aqueous phase of the cream base may include, for example at least 30% w/w of a polyhydric alcohol such as propylene glycol, butane-1,3-diol, mannitol, sorbitol, glycerol, polyethylene glycol and mixtures thereof. The topical formulation may desirably include a compound, which enhances

absorption or penetration of the active ingredient through the skin or other affected areas. Examples of such penetration enhancers include dimethylsulfoxide and related The compounds of this invention can also be analogs. administered by a transdermal device. Preferably topical administration will be accomplished using a patch either of the reservoir and porous membrane type or of a solid matrix In either case, the active agent is delivered variety. continuously from the reservoir or microcapsules through a 10 membrane into the active agent permeable adhesive, which is in contact with the skin or mucosa of the recipient. If the active agent is absorbed through the skin, a controlled and predetermined flow of the active agent is administered to the recipient. In the case of microcapsules, the encapsulating agent may also function as the membrane. The transdermal patch 15 may include the compound in a suitable solvent system with an adhesive system, such as an acrylic emulsion, and a polyester The oily phase of the emulsions of this invention may be constituted from known ingredients in a known manner. 20 While the phase may comprise merely an emulsifier, it may comprise a mixture of at least one emulsifier with a fat or oil or with both a fat and an oil. Preferably, a hydrophilic emulsifier is included together with a lipophilic emulsifier, which acts as a stabilizer. It is also preferred to include both an oil and a fat. Together, the emulsifier(s) with or 25 without stabilizer(s) make-up the so-called emulsifying wax, and the wax together with the oil and fat make up the socalled emulsifying ointment base, which forms dispersed phase of the cream formulations. Emulsifiers and 30 emulsion stabilizers suitable for use in the formulation of the invention include Tween 60, Span 80, cetostearyl alcohol, myristyl alcohol, glyceryl monostearate, and sodium lauryl sulfate, among others. The choice of suitable oils or fats for

15

20

25

30

the formulation is based on achieving the desired cosmetic properties, since the solubility of the active compound in most oils likely to be used in pharmaceutical emulsion formulations is very low. Thus, the cream should preferably be a non-greasy, non-staining and washable product with suitable consistency to avoid leakage from tubes or other containers. Straight or branched chain, mono- or dibasic alkyl esters such as di-isoadipate, isocetyl stearate, propylene glycol diester of coconut fatty acids, isopropyl myristate, decyl oleate, isopropyl palmitate, butyl stearate, 2-ethylhexyl palmitate or a blend of branched chain esters may be used. These may be used alone or in combination depending on the properties required. Alternatively, high melting point lipids such as white soft paraffin and/or liquid paraffin or other mineral oils can be used.

Formulations suitable for topical administration to the eye also include eye drops wherein the active ingredients are dissolved or suspended in suitable carrier, especially an solvent for the active ingredients. The inflammatory active ingredients are preferably present in such formulations in a concentration of 0.5 to 20%, advantageously 0.5 to 10% and particularly about 1.5% w/w. For therapeutic purposes, the active compounds of this combination invention are ordinarily combined with one or more adjuvants appropriate to the indicated route of administration. If administered per os, the compounds may be admixed with lactose, sucrose, starch powder, cellulose esters of alkanoic acids, cellulose alkyl talc, stearic acid, magnesium stearate, magnesium esters, oxide, sodium and calcium salts of phosphoric and sulfuric acids, gelatin, acacia sodium gum, alginate, polyvinylpyrrolidone, and/or polyvinyl alcohol, and tableted or encapsulated for convenient administration. Such capsules or tablets may contain a controlled-release

formulation as may be provided in a dispersion of active compound in hydroxypropylmethyl cellulose. Formulations for parenteral administration may be in the form of aqueous or injection isotonic sterile solutions non-aqueous suspensions. These solutions and suspensions may be prepared from sterile powders or granules having one or more of the carriers or diluents mentioned for use in the formulations for oral administration. The compounds may be dissolved in water, polyethylene glycol, propylene glycol, ethanol, corn oil, cottonseed oil, peanut oil, sesame oil, benzyl alcohol, sodium chloride, and/or various buffers. Other adjuvants and modes of administration are well and widely known in the pharmaceutical art.

The amount of therapeutically active compounds that are 15 administered and the dosage regimen for treating a disease condition with the compounds and/or compositions of this invention depends on a variety of factors, including the age, weight, sex and medical condition of the subject, the severity of the inflammation or inflammation related disorder, 20 route and frequency of administration, and the particular employed, compound and thus may vary widely. The pharmaceutical compositions may contain active ingredients in the range of about 0.1 to 1000 mg, preferably in the range of about 7.0 to 350 mg. A daily dose of about 0.01 to 100 mg/kg 25 body weight, preferably between about 0.1 and about 50 mg/kg body weight and most preferably between about 0.5 to 30 mg/kg body weight, may be appropriate. The daily dose can be administered in one to four doses per day. In the case of skin conditions, it may be preferable to apply 30 preparation of compounds of this invention to the affected area two to four times a day.

It will be understood, however, that the specific dose level for any particular patient will depend upon a variety of

factors including the activity of the specific compound employed, the age, body weight, general health, sex, diet, time of administration, route of administration, and rate of excretion, drug combination and the severity of the particular disease undergoing therapy.

For administration to non-human animals, the composition may also be added to the animal feed or drinking water. It may be convenient to formulate the animal feed and drinking water compositions so that the animal takes in a therapeutically appropriate quantity of the composition along with its diet. It may also be convenient to present the composition as a premix for addition to the feed or drinking water.

The disclosures in this application of all articles and references, including patents, are incorporated herein by reference.

The invention is illustrated further by the following examples, which are not to be construed as limiting the invention in scope or spirit to the specific procedures described in them.

The starting materials and various intermediates may be obtained from commercial sources, prepared from commercially available compounds, or prepared using well-known synthetic methods.

25

30

20

10

General Synthetic Procedures

Representative procedures for the preparation of compounds of the invention are outlined below in the Schemes. The starting materials can be purchased or prepared using methods known to those skilled in the art. Similarly, the preparation of the various intermediates can be achieved using methods known in the art. The starting materials may be varied and additional steps employed to produce compounds

encompassed by the invention, as demonstrated by the examples In addition, different solvents and reagents can typically be used to achieve the above transformations. Furthermore, in certain situations, it may be advantageous to which alter the order in the reactions are performed. Protection of reactive groups may also be necessary to achieve the above transformations. In general, the protecting groups, as well as the conditions necessary to attach and remove such groups, will be apparent to those skilled in the art of organic synthesis. When a protecting group is employed, deprotection will generally be required. Suitable protecting groups and methodology for protection and deprotection such as those described in Protecting Groups in Organic Synthesis by Greene and Wuts are known and appreciated in the art.

SCHEMES

The following schemes are representative of the methods that can be used to prepare these compounds.

20

5

10

15

In Scheme 1:

Each Q is independently alkyl, halogen, alkoxy, hydroxyalkyl, dihydroxyalkyl, arylalkoxy, thioalkoxy, alkoxycarbonyl, arylalkoxycarbonyl, CO_2R , CN, OH, hydroxyalkyl, dihydroxyalkyl, amidinooxime, $-NR_6R_7$, $-NR_8R_9$, $R_6R_7N-(C_1-C_6$ alkyl)-, carboxaldehyde, SO_2 alkyl, $-SO_2H$, $-SO_2NR_6R_7$, alkanoyl wherein the alkyl portion is optionally substituted with OH, halogen or alkoxy, $-C(O)NR_6R_7$, $-(C_1-C_4$ alkyl)- $-C(O)NR_6R_7$, amidino, haloalkyl, $-(C_1-C_4$ alkyl)- $-NR_{15}C(O)R_{16}R_{17}$, $-(C_1-C_4$ alkyl)- $-NR_{15}C(O)R_{18}$, $-O-CH_2-O$, $-O-CH_2CH_2-O-$, or haloalkoxy; wherein

10 R_{15} is H or C_1 - C_6 alkyl; and R_{18} is C_1 - C_6 alkyl optionally substituted with -O-(C_2 - C_6 alkanoyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 dihydroxyalkyl, C_1 - C_6 alkoxy, C_1 - C_6 alkoxy C_1 - C_6 alkyl; amino C_1 - C_6 alkyl, mono or dialkylamino C_1 - C_6 alkyl; and

each Y is independently halogen, $-(C_1-C_6)$ alkyl-N(R)-CO₂R₃₀, haloalkyl, heteroaryl, heteroarylalkyl, $-NR_6R_7$, $R_6R_7N-(C_1-C_6)$ alkyl)-, $-C(O)NR_6R_7$, $-(C_1-C_4)$ alkyl-C(O)NR₆R₇, $-(C_1-C_4)$ alkyl-NRC(O)NR₁₆R₁₇, haloalkoxy, alkyl, CN, hydroxyalkyl, dihydroxyalkyl, alkoxy, alkoxycarbonyl, phenyl, $-SO_2$ -phenyl wherein the phenyl and $-SO_2$ -phenyl groups are optionally substituted with 1, 2, or 3 groups that are independently halogen or NO₂, or $-OC(O)NR_6R_7$, wherein

 R_{16} and R_{17} are independently H or C_1 - C_6 alkyl; or

 R_{16} , R_{17} and the nitrogen to which they are attached form a 25 morpholinyl ring, wherein

n is 0, 1, 2, 3, 4, or 5.

More preferably, n is 0-4, and even more preferably, n is 0-3.

In a preferred embodiment of Scheme 1, Q and Y carry the following definitions:

Q at each occurrence is independently alkyl, halogen, alkoxy, arylalkoxy, thioalkoxy, alkoxycarbonyl, arylalkoxycarbonyl, CO_2H , CN, amidinooxime, NR_6R_7 , R_6R_7N (C_1 -

 C_6) alkyl, -C(0) NR_6R_7 , (C_1-C_4) alkyl-C(0) NR_6R_7 , amidino, haloalkyl, or haloalkoxy; and n is 0, 1, 2, 3, 4, or 5;

Y at each occurrence is independently alkyl, halogen, alkoxy, arylalkoxy, thioalkoxy, alkoxycarbonyl,

arylalkoxycarbonyl, CO_2H , CN, amidinooxime, NR_6R_7 , R_6R_7N (C_1-C_6) alkyl, $-C(O)NR_6R_7$, (C_1-C_4) alkyl- $C(O)NR_6R_7$, amidino, haloalkyl, or haloalkoxy; and n is 0, 1, 2, 3, 4, or 5; X is a halide, preferably Br or Cl.

Scheme 2

In Scheme 2:

R₄ is as defined for formula I, and in a preferred

15 embodiment, R₄ is H, halogen, CH₃ or SCH₃. Preferred

halogenating reagents include N-bromosuccinimide (NBS), Br₂, N
chlorosuccinimide, and Cl₂.

Scheme 3

20

10

In Scheme 3, preferred halogenating reagents include N-bromosuccinimide (NBS), Br_2 , N-chlorosuccinimide, and Cl_2 .

Scheme 4

5

Scheme 5

10

where m is 0,1,2,3 or 4 and n is 0, 1, 2, 3, 4, or 5.

15

Scheme 6

Scheme 7

where X' is Cl, Br, I or SR.

Scheme 8

5

Scheme 9

$$P_{n}$$
 P_{n}
 P_{n

Scheme 10

5

X N R_5 R_4

10

Scheme 12

One of skill in the art will appreciate that other

15 halides, such as chloro will work, and that all three halogens
are not required. Further, the CN group can be replace with

5

10

other activating groups, such as NO_2 , CO_2Me , $CONH_2$, and $-CH=CH_2$ will also work.

Scheme 14

Y_n

$$P_{n}$$
 P_{n}
 P_{n

While the halogenation in Scheme 14 can be carried out using a variety of different halogenation reagents, or protocols, a preferred halogenation method includes using 2, 4, 6-trichloro-1, 3, 5-triazine (which is also known as

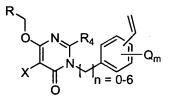
cyanuric chloride) in DMF/CH₂Cl₂.

Scheme 15

5

Scheme 16

$$\begin{array}{c|c}
R & & & Br \\
O & N & R_4 & & 11 \\
N & N & n = 0-6
\end{array}$$



where m is 0, 1, 2, 3, or 4.

10

Scheme 17

10

15

Scheme 18

One of skill in the art will appreciate that periodic acid may also be used to affect the desired cleavage of the diol shown in Scheme 18. Further, one of skill in the art will recognize that after cleavage of the diol, the resulting aldehyde may be further elaborated using methods well known in the art, including for example, reductive amination.

Scheme 19

Scheme 20

10

Scheme 21

Scheme 22

Scheme 23

15

Scheme 24

5

Scheme 25

EXPERIMENTAL PROCEDURES

Preparation of 3-benzyl-6-(benzyloxy)-5-bromopyrimidin-4(3H)-one

Step 1: Preparation of 3-benzyl-6-(benzyloxy)-pyrimidin4(3H)-one

15

4,6-dihydroxypyrimidine (25.0 g, 0.223 mol) and potassium
carbonate (65.1 g, 0.471 mol) are combined in 0.5 L anhydrous
dimethylformamide. Benzyl chloride (55.7 g, 0.439 mol) is
added dropwise over 30 minutes with stirring. After 4 h the
5 solution is filtered, and the filtrate concentrated in vacuo.
The residue is washed with acetonitrile, and the product is
collected as a white solid by filtration (44.6 g, 68%). ¹H-NMR
(400 MHz, DMSO-d₆) δ 8.06 (m, 2 H), 7.61 (quartet, J = 8.45 Hz,
1H), 7.30 (t, J = 10.37 Hz,1H), 7.12, (t, J = 8.45 Hz, 1H),
7.09 (d, J = 5.06 Hz, 2H), 5.14 (s, 2H). LC/MS t_r = 5.29
minutes (0-95% acetonitrile/water, 0.05% trifluoroacetic acid,
over 6 minutes at 1 ml/min with detection at 215 nm, at 50°C)
ES-MS m/z 293 (M+H).

15 Step 2: Preparation of the title compound

3-benzyl-6-(benzyloxy)-pyrimidin-4(3H)-one (from Step 1) (5.00 g , 17.1 mmol) and N-bromosuccinimide (3.15 g, 17.7 mmol) are strirred in 100 ml anhydrous dimethylformamide for 20 hours. The solution is poured onto 1 L of ice with stirring and allowed to come to room temperature, when the product is collected by filtration. (5.97 g). The product is recrystalized from 60 mL hot acetonitrile (4.75 g, 75%) 1 H-NMR (400 MHz, DMSO- d_6) δ 7.92 (s, 1H), 7.28-7.44 (overlapping m, 9H), 7.24 (s, 1H), 5.43 (s, 2H), 5.12 (s, 2H). LC/MS t_r = 5.89 minutes (0-95% acetonitrile/water, 0.05% trifluoroacetic acid, over 6 minutes at 1 ml/min with detection at 254 nm, at 50°C) ES-MS m/z 371 (M+H). HRMS m/z 371 (M+H) 371.0399, calc. 371.0395.

30

Preparation of 3-[5-Bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N,4-dimethylbenzamide

Step 1: Preparation of methyl 3-(Ethanimidoylamino)-4-methylbenzoate

$$\begin{array}{c} CH_3 \\ NH \\ NH \\ OCH_3 \end{array}$$

5

A mixture of 2-naphthylmethyl ethanimidothioate hydrobromide (20.0 g, 0.068mol, (Tetrahedron Letters 38, 179-182, 1997) and methyl 3-amino-4-methylbenzoate (11.3 g, 0.068mol) in ethanol (125 mL) is stirred at room temperature for 1 h and then heated at 65 °C for 2 h under argon 10 atmosphere. The resulting clear solution is concentrated under reduced pressure and the residue is partitioned between water (100 ml) and ether (50 mL). The aqueous portion is washed with ether (2 x 50 mL) and lyophilized to give a white powder 15 (12.0 q). This is suspended in water (25 mL), cold 0.5 N NaOH (90.0 mL) is added, and the mixture is extracted with EtOAc (3 x 50 mL). The combined EtOAc extracts are washed with brine, dried (anhy. Na₂SO₄), filtered, and concentrated to dryness to afford methyl 3-(ethanimidoylamino)-4-methylbenzoate (5.9 g, 20 42 %) as a white powder. ¹H NMR (CD₃OD/ 400 MHz) δ 7.61 (m, 1H), 7.40 (s, 1H), 7.26 (m, 1H), 3.85 (s, 3H), and 2.17 (s, 3H); ES-HRMS m/z 207.1128 (M+H calcd for $C_{11}H_{15}N_2O_2$ requires 207.1104).

Step 2: Preparation of methyl 4-methyl-3-(2-methyl-4,6-dioxo-5,6-dihydropyrimidin-1(4H)-yl)benzoate

To a solution of methyl 3-(ethanimidoylamino)-4-5 methylbenzoate (2.5 g, 0.012 mol) in dichloromethane (25 mL) at -10 °C, is added N-methylmorpholine (1.84 g, 0.018 mol) followed by the dropwise addition of a solution of methylmalonylchloride (2.54 g, 0.18 mol) in dichloromethane The resulting mixture is allowed to warm to room 10 (8.0 mL). temperature over a period of 16 h. The reaction mixture is then cooled to -10 °C and additional N-methylmorpholine (0.37 g, 0.0036 mol) is added, followed by a solution of methylmalonylchloride (0.51 q, 0.0037 mol) in dichloromethane (5.0 mL). After stirring the reaction mixture at room 15 temperature for 1 h, it is cooled to 0 °C and cold 5% NaHCO3 (25 mL) is added. The organic phase is washed with water (2 x 15 mL), dried (Na₂SO₄), filtered, and concentrated to dryness to give a yellow syrup which is purified by silica gel flash chromatography using 35% EtOAc in hexanes. The appropriate 20 fractions (MH $^+$, m/z = 307) are pooled and concentrated to give a pale yellow syrup (1.8 q). The syrup (0.2 q, 0.00065 mol) is dissolved in dioxane (3.0 mL), DBU is added (0.05 g, 0.00033 mol) and the mixture is heated at 65 °C under argon atmosphere for 5 h. The reaction mixture is concentrated and 25 the residue is purified by reverse-phase HPLC using 10-90% CH₃CN/Water gradient (40 min) at a flow rate of 80 mL/min. The appropriate fractions (MH $^{+}$, m/z = 275) are combined and freeze-dried to afford the title compound (0.11 g, 61%) as a

white powder: ¹H NMR (CD₃OD/ 400 MHz) δ 8.04 (d, 1H, J = 1.6 Hz), 7.87 (d, 1H, J = 1.6 Hz), 7.56 (m, 1H), 5.46 (s, 1H) 3.89 (s, 3H), and 2.16 (s, 3H), 2.1 (s, 3H); ES-HRMS m/z 275.1045 (M+H calcd for $C_{14}H_{15}N_2O_4$ requires 275.1026).

Step 3: Preparation of Methyl 3-[4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoate

$$O = \bigcup_{O \subset H_3}^{CH_3} \bigcup_{N} O = \bigcup_{N}^{F}$$

10 A mixture of methyl 4-methyl-3-(2-methyl-4,6-dioxo-5,6dihydropyrimidin-1(4H)-yl)benzoate (0.1 g, 0.00036 mol, from Step 2), K_2CO_3 (0.075 g, 0.00054 mol) and 2,4 difluorobenzylbromide (0.075 g, 0.00036 mol) in DMF (2.0 mL) containing 18-crown-6 (0.005 g) is stirred at room temperature 15 for 1 h under argon atmosphere. DMF is distilled in vacuo and the residue is purified by reverse-phase HPLC using 10-90% ${
m CH_3CN/Water}$ gradient (40 min) at a flow rate of 80 mL/min. The appropriate fractions (MH $^{+}$, m/z = 401) are combined and concentrated to a small volume (~ 20 mL). After cooling, 5% NaHCO₃ solution (10 mL) is added and the solution is extracted 20 with dichloromethane (3 \times 20 mL). The combined organic extracts are dried (Na2SO4), filtered, and concentrated to dryness to afford the title compound (0.12 g, 82%) as a white amorphous substance: 1 H NMR (CD₃OD/ 400 MHz) δ 8.04 (d, 1H, J = 1.6 Hz), 7.87 (d, 1H, J = 1.16 Hz), 7.55 (m, 2H), 7.00 (m, 25 2H), 5.79 (s, 1H), 5.38 (s, 2H), 3.89 (s, 3H), 2.14 (s, 3H), and 2.12 (s, 3H); ES-HRMS m/z 401.1346 (M+H calcd for $C_{21}H_{19}N_2O_4F_2$ requires 401.1307).

Step 4: Preparation of Methyl 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoate

5

A mixture of methyl 3-[4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoate (0.41g, 0.001 mol, from Step 3) and NBS (0.2 g, 0.0011 mol) in

10 dichloromethane (5.0 mL) is stirred at room temperature for 1.5 h under argon atmosphere. The reaction mixture is purified by flash chromatography using 30% EtOAc in hexanes to furnish the title compound (0.37 g, 75%) as a white amorphous powder: ¹H NMR (CD₃OD/ 400 MHz) δ 8.04 (d, 1H, J = 1.6 Hz), 7.89 (d, 1H, J = 1.6 Hz), 7.62 (m, 2H), 7.01 (m, 2H), 5.56 (s, 2H), 3.89 (s, 3H), 2.15 (s, 3H), and 2.133 (s, 3H); ES-HRMS m/z 479.0412 (M+H calcd for C₂₁H₁₈N₂O₄F₂Br requires 479.0413).

¹⁹F NMR (CD₃OD/ 400 MHz) -111.870 (m) and -115.95 (m).

20 Step 5: Preparation of 3-[5-Bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoic acid

A mixture of methyl 3-[5-bromo-4-[(2,4difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4methylbenzoate (0.40g, 0.00084 mol, from Step 4), and 1.5 N NaOH (0.7 mL, 0.042 q, 0.001 mol) containing dioxane (0.5 mL) is stirred at 55 °C for 30 min. The resulting clear brown solution is cooled in an ice bath, diluted with water (3 mL), acidified with trifluoroacetic acid, and the product is purified by reverse-phase HPLC using 10-90% CH3CN/Water gradient (40 min) at a flow rate of 80 mL/min. The appropriate 10 fractions $(MH^+, m/z = 465)$ are combined and freeze-dried to afford the title compound (0.17 q, 44%) as a white powder: ¹H NMR (CD₃OD/ 400 MHz) δ 8.04 (d, 1H, J = 1.6 Hz), 7.87 (d, 1H, J= 1.6 Hz), 7.54 (m, 2H), 6.99 (m 2H), 5.56 (s, 2H), 2.15 (s,3H), and 2.13 (s, 3H); ES-HRMS m/z 465.0256 (M+H calcd for $C_{20}H_{16}N_2O_4F_2Br$ requires 465.0256); ¹⁹F NMR(CD₃OD/ 400 MHz) 15 -111.89 (m) and -115.95 (m).

Step 6: Preparation of title compound.

20 To a solution of 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoic acid (0.16 q, 0.00034 mol, obtained from Step 5) at 0 °C is added isobutylchloroformate (0.063 q, 0.00046 mol) followed by the addition of N-methylmorpholine (0.064 g, 0.00064 mol). 25 resulting reaction mixture is stirred for 5 minutes under an argon atmosphere. The ice bath is then removed, the reaction mixture is stirred at room temperature for 20 minutes, then the reaction mixture is recooled to 0 °C, and N-methylamine (0.5 mL of 2.0 M soln in THF) is added. The resulting mixture 30 is stirred at room temperature for 10 min, concentrated in vacuo, and the residue is purified by reverse-phase HPLC using 10-90% CH₃CN/Water gradient (40 min) at a flow rate of 80

10

mL/min. The appropriate fractions (MH $^+$, m/z = 478) are combined, concentrated to a small volume (~ 20 mL), cooled, 5% NaHCO₃ solution (10 mL) is added and then the combined fractions are extracted with dichloromethane (3 x 20 mL). The combined organic extracts are dried (Na₂SO₄), filtered, and concentrated to dryness to afford the title compound (0.16 g, 96%) as a white amorphous substance: 1 H NMR (CD₃OD/ 400 MHz) δ 7.87 (dd 1H, J = 8.0 Hz), 7.64 (d, 1H, J = 1.6 Hz), 7.61 (m, 1H), 7.53 (d, 1H, J = 8.0 Hz), 7.01 (m, 2H), 5.55 (m, 2H), 2.89 (s, 3H), 2.16 (s, 3H), and 2.12 (s, 3H); ES-HRMS m/z 478.0586 (M+H calcd for C₂₁H₁₉N₂O₄F₂ requires 478.0572). 19 F NMR (CD₃OD/ 400 MHz) $^{-111.84}$ (m) and $^{-115.91}$ (m).

Preparation of 3-[5-Bromo-4-[(2,4-difluorobenzyl)oxy]-2
methyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzamide

Step 1: Preparation of 3-[5-Bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoic acid

20

A mixture of methyl 3-[4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoate (0.20g, 0.0005 mol) and 2N NaOH (0.4 mL, 0.0008 mol) in dioxane (0.25

mL) is stirred at room temperature for 45 min. The resulting clear solution is diluted with water (5.0 mL), acidified with acetic acid and extracted with dichloromethane (2 x 10 mL). The combined organic extracts are washed with water (2 x 10 mL), dried (Na₂SO₄), filtered, and concentrated to dryness to afford the title compound (0.15 g, 78%) as a white powder: 1 H NMR (CD₃OD/ 400 MHz) δ 8.08 (m,1H), 7.85 (d, 1H, J = 1.6 Hz), 7.55 (m, 2H), 7.00 (m, 2H), 5.80 (s, 1H), 5.38 (s, 2H), 2.14 (s, 3H), and 2.13 (s, 3H); ES-HRMS m/z 387.1166 (M+H calcd for C₂₀H₁₇N₂O₄F₂ requires 387.1151). 19 F NMR (CD₃OD/ 400 MHz) -107.75 (m) and-112.08 (m).

Step 2. Preparation of title compound

15 To a suspension of 3-[5-Bromo-4-[(2,4difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4methylbenzoic acid (0.15 g, 0.00039 mol, obtained from step 1) in dichloromethane (5.0 mL) and dioxane (1.0 mL) is added NBS (0.075 q, 0.00042 mol). The resulting reaction mixture is 20 stirred at room temperature for 1 hour and then concentrated to dryness. The residue is dried in a desiccator for 1 hour, dissolved in dimethylacetamide (2.5 mL), isobutylchloroformate (0.075 mL, 0.00058 mol) is added, N-methylmorpholine (0.14 mL, 0.0013 mol) is then added, and the reaction mixture is stirred at 0 °C for 5 min under argon. After stirring the 25 reaction mixture at room temperature for 30 min, it is cooled to 0 °C, a solution of ammonia in isopropanol (1.2 mL of 2M ammonia in isopropanol) is added and the resulting reaction mixture is stirred at 0 °C for 30 min. The resulting mixture 30 is concentrated to dryness under reduced pressure and the residue is purified by reverse-phase HPLC using 10-90% CH₃CN/Water gradient (40 min) at a flow rate of 80 mL/min. The

appropriate fractions (MH*, m/z = 464) are combined and concentrated to a small volume (~ 25 mL), cooled, 5% NaHCO₃ solution (5.0 mL) is added and then the mixture is extracted with dichloromethane (2 x 20 mL). The combined organic extracts are dried (Na₂SO₄), filtered, and concentrated to dryness to afford the desired product (0.115 g, 77%) as a white powder: ¹H NMR (CD₃OD/ 400 MHz) δ 7.95 (m 1H), 7.12 (d, 1H J = 1.6 Hz), 7.62 (m 1H), 7.61 (m, 1H), 7.01 (m, 2H), 5.58 (m, 2H), 2.16 (s, 3H), and 2.12 (s, 3H); ES-HRMS m/z 464.0436 (M+H calcd for C₂₀H₁₇N₃O₃F₂Br requires 464.0416). ¹⁹F NMR (CD₃OD/ 400 MHz) -111.85 (m) and -115.92 (m).

Preparation of 4-{[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]methyl}-N-methylbenzamide

15

10

Step 1: Preparation of Methyl 3-({(1Z)-1-[(2-naphthylmethyl)thio]ethylidene}amino)-3-oxopropanoate

20

To a suspension of 2-naphthylmethyl ethanimidothicate hydrobromide (3.0 g, 0.01mol) in THF (20.0 mL) at 0 °C, is added N-methylmorpholine (2.4 mL. 0.022 mol), followed by the

dropwise addition of a solution of methyl malonyl chloride (1.2 mL, 0.011 mol) in THF (5.0 mL). The resulting mixture is stirred at 0 °C for 30 min, and at room temperature for an additional 30 min. The mixture is diluted with cold water, (25 mL) and extracted with dichloromethane (2 x 20 mL). The combined organic extracts are washed with water, dried (Na₂SO₄), filtered and concentrated to dryness under reduced pressure to give a yellow syrup, which is purified by flash chromatography using 25 % EtOAc in hexanes to give the title compound (1.9 g, 59%) as colorless syrup: ES-HR MS m/z 316.0993 (M+H calcd for $C_{17}H_{18}NO_3SN$ requires 316.1002).

Step 2: Preparation of methyl 4-[(4-hydroxy-2-methyl-6-oxopyrimidin-1(6H)-yl)methyl]benzoate

15

10

To a solution of methyl 3-({(1Z)-1-[(2-naphthylmethyl)thio]ethylidene}amino)-3-oxopropanoate (1.9 g, 0.006 mol, from step 1) in THF (25.0 mL), at 0 °C, is added methyl-4-aminomethylbenzoate (1.1 g, 0.0067 mol). The reaction mixture is stirred at room temperature for 1 hour, and then concentrated to dryness. The resulting residue is dissolved in dioxane (20 .0 mL), DBU (0.1 mL) is added, and the resulting reaction mixture is heated at 70 °C for 1 h under an argon atmosphere. After removing the solvent under reduced pressure, the residue is purified by reverse-phase HPLC using 10-90% CH₃CN/Water gradient (40 min) at a flow rate

of 80 mL/min. The appropriate fractions (MH⁺, m/z = 275) are combined and freeze-dried to afford the title compound (0.33 g) as a white powder: ¹H NMR (CD₃OD/ 400 MHz) δ 7.99 (d 2H, J = 8.4 Hz), 7.29 (d, 2H, J = 8.4 Hz), 5.42 (s, 1H), 5.36 (s, 2H), 3.88 (s, 3H), and 2.42 (s, 3H); ES-HRMS m/z 275.1021 (M+H calcd for C₁₄H₁₅N₂O₄ requires 275.1026).

Step 3. Preparation of methyl 4-{[4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]methyl}benzoate

10

A mixture of methyl 4-[(4-hydroxy-2-methyl-6oxopyrimidin-1(6H)-yl)methyl]benzoate(0.2 g, 0.00073 mol, from step 2), potassium carbonate (0.15 g, 0.001 mol), 2,4 difluorobenzylbromide (0.15 q, 0.00073 mol), and 18-crown-6 15 (0.011 g) in DMF is stirred at room temperature for 1 h under argon atmosphere. The DMF was distilled in vacuo and the residue is partitioned between dichloromethane (20 mL) and water (20 mL). The organic phase is washed with water, dried 20 (Na₂SO₄), filtered and concentrated under reduced pressure. The resulting residue is purified by silica gel flash chromatography using 35% EtOAc in hexanes to afford the title compound (0.20 g, 69%) as a white powder: ¹H NMR $(CD_3OD/400)$ MHz) δ 7.98 (d 2H, J = 8.4 Hz), 7.54 (m, 1H), 7.27 (d, 2H, J = 8.4 Hz), 6.98 (m, 2H), 5.78 (s, 1H), 5.38 (s, 2H), 5.32 (s, 25 2H), 3.88 (s, 3H), and 2.44 (s, 3H); ES-HRMS m/z 401.1308 (M+H calcd for $C_{21}H_{19}N_2O_4F_2$ requires 401.1307). ¹⁹F NMR(CD₃OD/ 400 MHz) -111.77 (m), 116.06 (m).

Step 4: Preparation of 4-{[4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]methyl}benzoic acid

5

A mixture of methyl $4-\{[4-[(2,4-difluorobenzyl)]-2$ methyl-6-oxopyrimidin-1(6H)-yl]methyl}benzoate (0.20g, 0.0005 mol, from step 3) and 2N NaOH (0.4 mL, 0.0008 mol) in dioxane 10 (0.25 mL) is stirred at room temperature for 45 min. The resulting clear solution is diluted with water (5.0 mL), acidified with acetic acid and extracted with dichloromethane $(2 \times 10 \text{ mL})$. The combined organic extracts are washed with water (2 x 10 mL), dried (Na₂SO₄), filtered and concentrated to dryness to afford the title compound (0.15 g, 78%) as a 15 white powder: ¹H NMR (CD₃OD/ 400 MHz) δ 7.99 (d, 2H, J = 8.0 Hz), 7.54 (m, 1H,), 7.27 (d, 2H, J = 8.0 Hz), 6.00 (m, 2H), 5.78 (s, 1H), 5.39 (s, 2H), 5.32 (s, 2H), 2.45 (s, 3H), and 2.13 (s, 3H); ES-HRMS m/z 387.1134 (M+H calcd for $C_{20}H_{17}N_2O_4F_2$ requires 387.1151). 19F NMR(CD₃OD/ 400 MHz) -111.79(m) and 20 -116.08 (m).

Step 5: Preparation of the title compound.

25

To a suspension of 4-{[4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]methyl}benzoic acid (0.18 g, 0.00047 mol, from step 4) in dichloromethane (3.0 mL) and dioxane (1.0 mL) is added NBS (0.09 g, 0.0005 mol). The

resulting reaction mixture is stirred at room temperature for 3 hours, concentrated to dryness, and the residue is then dried in a desiccator for 2 h. This residue is dissolved in dimethylacetamide (2.5 mL), isobutylchloroformate (0.08 mL, 0.00062 mol) is added, N-methylmorpholine (0.0.08 mL, 0.00073 mol) is then added, and the reaction mixture is stirred at 0 °C for 5 min under argon. The reaction mixture is then stirred at room temperature for 30 min, it is recooled to 0 °C, a solution of N-methylamine in THF(1.1 mL of 2M inTHF) is then added , and the resulting reaction mixture is stirred at 0 °C for 30 min. The resulting mixture is concentrated to dryness under reduced pressure and the residue is purified by reverse-phase HPLC using 10-90% CH₃CN/Water gradient (40 min) at a flow rate of 80 mL/min. The appropriate fractions (MH+, 15 m/z = 478) are combined and concentrated to a small volume (~ 25 mL), cooled added 5% NaHCO3 solution (5.0 mL) and extracted with dichloromethane (2 x 20 mL). The combined organic extracts are dried (Na2SO4), filtered and concentrated to dryness to afford the title compound (0.14 g, 64%) as a white 20 powder: ¹H NMR (CD₃OD/ 400 MHz) δ 7.77 (d 2H, J = 8.4 Hz), 7.58 (m, 1H), 7.26 (d, 2H, J = 8.4 Hz), 7.01 (m, 2H), 5.49 (s, 2H), 5.42 (s, 2H), 2.89 (s, 3H), and 2.48 (s, 3H); ES-HRMS m/z478.0596 (M+H calcd for $C_{21}H_{19}N_3O_3F_2Br$ requires 478.0572). ¹⁹F NMR (CD₃OD/ 400 MHz) -111.99 (m) and -115.99 (m).

25

Preparation of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-(methylthio)-6-oxopyrimidin-1(6H)-yl]-4-methylbenzamide.

25

5 Step 1: Preparation of methyl 3-[(aminocarbonothioyl)amino]-4-methylbenzoate

$$O \longrightarrow H_2N$$

To a mixture of methyl-3-aminomethyl benzoate (5.7 g, 10 0.035 mol) and potassiumthiocyanate (5.0 q, 0.05 mol) in THF at 0 °C, was added 4N HCl in dioxane (9.0 mL) and the resulting mixture was heated at 80 °C under argon for 20 h. After the removal of the solvents under educed pressure, the 15 residue was triturated with water and filtered the precipitate. It was washed thoroughly washed with water and air dried to give a pale yellow substance. This material was further washed with hot ethylacetate (200 mL) and dried to give the title compound (3.85 g) as a white powder: ¹H NMR 20 $(CD_3OD/400 MHz) \delta 7.85 (m, 2H), 7.38 (m, (1H), 3.89 (s, 3H),$ and 2.33 (s, 3H); ES-HRMS m/z 225.0672 (M+H calcd for $C_{10}H_{13}N_2O_2S$ requires 225.0692).

Step 2: Preparation of methyl 3-[4-hydroxy-2-(methylthio)-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoate

To a suspension of 3-[(aminocarbonothioyl)amino]-4methylbenzoate (1.5 q, 0.067 mol)in methanol (15.0 mL) at 0 °C, was added iodomethane (0.5 mL. 0.0077 mol) and stirred at room temperature for 30 min. The reaction mixture was then heated to reflux for 15 min, when a clear solution was obtained. It was concentrated under reduced pressure, the residue was dried in vacuo for 1 h and dissolved in 10 dichloromethane (25.0 mL). This solution was cooled to -5 °C, added N-methylmorpholine (1.38 g, 0.0136 mol) followed by the dropwise addition of a solution of methylmalonyl chloride (1.36 g, 0.01 mol) in dichloromethane (5.0 mL) and the 15 resulting mixture was stirred at room temperature overnight under argon atmosphere. The mixture was cooled to - 5°C and added an additional amount of N-methylmorpholine (0.46 g, 0.0046 mol) followed by the addition of methylmalonyl chloride (0.62 g, 0.0045 mol) and stirred at room temperature for 2 h. 20 The reaction mixture was then cooled to 10 °C, added water (25 mL) and dichloromethane (25 mL) and the mixture was stirred for 30 min. The interfacial solid was filtered, washed with water and dried in a desicctor to give 1.1 g (55%) of the title compound as a white powder: ^{1}H NMR (CD₃OD/ 400 MHz) δ 25 8.05 (d, 1H, J = 8.4 Hz), 7.80 (s, 1H), 7.52 (d, 1H, J = 8.4 Hz), 7.80 (s, 1H), 7.52 (d, 1H, J = 8.4 Hz), 7.80 (s, 1H), 7.52 (d, 1H, J = 8.4 Hz), 7.80 (s, 1H), 7.52 (d, 1H, J = 8.4 Hz), 7.80 (s, 1H), 7.52 (d, 1H, J = 8.4 Hz), 7.80 (s, 1H), 7.52 (d, 1H, J = 8.4 Hz), 7.80 (s, 1H), 7.52 (d, 1H, J = 8.4 Hz), 7.80 (s, 1H), 7.52 (d, 1H, J = 8.4 Hz), 7.80 (s, 1H, JHz), 5.44 (s, 1H), 3.89 (s, 3H), 2.46 (s, 3H), and 2.15 (s, 3H); ES-HRMS m/z 307.0769 (M+H calcd for $C_{14}H_{15}N_2O_4S$ requires 307.0747).

Step 3: Preparation of methyl 3-[4-[(2,4-difluorobenzyl)oxy]-2-(methylthio)-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoate

5

To a solution of methyl 3-[4-hydroxy-2-(methylthio)-6oxopyrimidin-1(6H)-yl]-4-methylbenzoate (1.0 g, 0.0033 mol) in DMF (10. 0 mL) obtained from step 2, was added potassium carbonate (0.7 g, 0.005 mol) followed by the addition of 2,4 difluorobenzyl bromide (0.8 g, 0.0039 mol) and stirred at 0 °C for 15 min. After stirring at room temperature for 30 min, DMF was distilled in vacuo and the residue was portioned between EtOAc (25 mL) and water (25 mL). The organic phase was washed with water, (2 x 20 mL), dried (Na₂SO₄) and 15 concentrated. The resulting material was purified by flash chromatography using EtOAc/hexane (1:1 v/v) to afford the title compound (0.9 g, 64%) as a white powder: ¹H NMR (CD₃OD/ 400 MHz) δ 8.08 (dd, 1H, J = 8.4 Hz, & 1.6 Hz), 7.83 (d, 1H, J= 1.6 Hz), 7.55 (m, 2H), 6.99 (m 2H), 5.64 (s, 1H), 5.48 (s,20 2H), 3.89 (s, 3H), 2.50 (s, 3H), and 2.15 (s, 3H); ES-HRMS m/z433.1016 (M+H calcd for $C_{21}H_{19}N_2O_4SF_2$ requires 433.1028).

Step 4: Preparation of 3-[4-[(2,4-difluorobenzyl)oxy]-2-(methylthio)-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoic acid 10

20

A mixture of the ester (0.4 g, 0.0009 mol) obtained from step 3, in 2N NaOH (0.9 mL) and dioxane (0.5 mL) was stirred at room temperature for 1,5 h. The resulting clear solution was diluted with water (5.0 mL), acidified with 5% citric acid and extracted with EtOAc (2 x 20 mL). The combined organic extracts were washed with water (2 x15 mL), dried (Na₂SO₄), and concentrated to afford the title compound (0.38 g) as a white powder: 1 H NMR (CD₃OD/ 400 MHz) δ 8.06 (d, 1H, J = 8.0 Hz), 7.81 (s, 1H), 7.51 (m, 2H), 6.99 (m 2H), 5.64 (s, 1H), 5.48 (s, 2H), 2.50 (s, 3H), and 2.15 (s, 3H); ES-HRMS m/z 419.0892 (M+H calcd for $C_{20}H_{17}N_{2}O_{4}SF_{2}$ requires 419.0872).

Step 5: Preparation of 3-[5-chloro-4-[(2,4difluorobenzyl)oxy]-2-(methylthio)-6-oxopyrimidin-1(6H)-yl]-4methylbenzamide

A mixture of 3-[4-[(2,4-difluorobenzyl)oxy]-2-(methylthio)-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoic acid

10

(0.5 g, 0.001 mol, from step 4), N-chlorosuccinimide (0.14 g, 0.001 mol) in dichloroethane containing dichloroacetic acid (0.2 mL) was heated at 65 °C for 3 h under argon atmosphere. An additional amount of N-chlorosuccinimide (0.05 g) was added and heating was continued for an additional 16 h. The reaction mixture was concentrated under reduced pressure and the residue was partitioned between EtOAc (25 mL) and water (30 mL). The organic phase was washed with water (2 x10 mL), dried (Na_2SO_4), and concentrated to dryness under reduced pressure.

The resulting material was dried in vacuo for 3 h, dissolved in DMF (3.0 mL), added N-methylmorpholine (0.22 g, 0.0022 mol) followed by the addition of isobutylchloroformate (0.23 g, 0.0017 mol) and stirred at 0 °C under argon atmosphere. After 5min, the mixture was stirred at room temperature for 30 min, cooled to 0 °C and added a solution of ammonia (1.8 mL of 2M soln in isopropanol) and the mixture was stirred at room temperature . After 30 min, an additional 1.0 mL of ammonia solution I isopropanol was added and continued stirring for another 30 min. After the removal of the 20 solvents under reduced pressure the residue was purified by reverse-phase HPLC using 10-90% CH₃CN/Water gradient (40 min) at a flow rate of 80 mL/min. The appropriate fractions (MH+, m/z = 452) were combined and concentrated to a small volume 25 (~ 20 mL), cooled added 5% sod. bicarbonate (10 mL) and extracted with dichloromethane (3 x 20 mL). The combined organic extracts were dried (Na2SO4) and concentrated to dryness to afford the title compound (0.15 g,) as a white powder: 1 H NMR (CD₃OD/ 400 MHz) δ 7.87 (dd 1H, J = 2.0 Hz & 8.0 Hz), 7.74 (d, 1H, J = 2.0 Hz)

7.58 (m, 2H), 7.03 (m, 2H), 5.63 (m 2H), 2.53 (s, 3H), and 2.14 (s, 3H); ES-HRMS m/z 452.0633(M+H calcd for $C_{20}H_{17}N_3O_3F_2ClS$ requires 452.0642); ¹⁹F NMR(CD₃OD/ 400 MHz) -111.75(m) and-115.99(m).

5

Step 6: Preparation of the title compound 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methylbenzamide

10

15

20

25

A mixture of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-(methylthio) -6-oxopyrimidin-1(6H)-yl]-4-methylbenzamide (0.15 g, 0.00033 mol from step 5), and Raney nickel (0.8 mL, 50% slurry in water) in ethanol (15.0 mL) was refluxed under argon atmosphere. After 12 h, added an additional 0.4 mL of Raney nickel and continued refluxing for another 4 h. The reaction mixture was cooled and the supernatant was decanted off. catalyst was washed with ethanol, the combined ethanol washings and the supernatant were concentrated under reduced pressure and the resulting residue was purified by reversephase HPLC using 10-90% CH3CN/Water gradient (40 min) at a flow rate of 80 mL/min. The appropriate fractions (MH $^+$, m/z = 406) were combined and concentrated to a small volume (~ 20 mL), cooled added 5% sod. bicarbonate (10 mL) and extracted with dichloromethane (3 x 20 mL). The combined organic extracts were dried (Na₂SO₄) and concentrated to dryness to afford the title compound (0.075 g,) as a white powder: ¹H NMR (CD₃OD/ 400 MHz) δ 8.31 (s, 1H), 7.94 (dd, 1H. J = 2.0 Hz & 8.0 Hz), 7.79 (d, 1H, J = 2.0 Hz), 7.62 (m, 1H), 7.53 (m, 1H), 7.02 (m, 2H), 5.59 (m, 2H), and 2.19 (s, 3H); ES-HRMS m/z 406.0774 (M+H calcd for $C_{19}H_{15}N_3O_3F_2Cl$ requires 406.0765); ¹⁹F NMR(CD₃OD/ 400 MHz) - 111.62 (m) and-115.94 (m).

5

Preparation of (±) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methyl-N-{1-[(methylamino)carbonyl]methyl}benzamide.

10

15

20

25

To a solution of 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoic acid (1.0 g, 0.022 mol) in dimethylacetamide (10.0 mL) at -20 °C was added isobutylchloroformate (0.36 g, 0.0028 mol), followed by dropwise addition of N-methylmorpholine (0.30 g, 0.003 mol) and stirred for 10 min under nitrogen atmosphere. The reaction mixture was then stirred at room temperature for 20 min, cooled to 0 °C, and added N-methylmorpholine (0.30 g, 0.003 mol) followed by the addition of N-methylglycine amide hydrochloride (0.35 g, 0.0028 mol) and DMAP (0.025 g). The reaction mixture was stirred at room temperature for 4 h, and concentrated in vacuo. The resulting the residue was purified by reverse-phase HPLC using 10-90% CH₃CN/Water gradient (40 min) at a flow rate of 80 mL/min. The appropriate fractions

5

10

(MH⁺, m/z = 535) were combined, and freeze-dried to give a white solid. This was dissolved in dichloromethane (25 mL), washed successively with 5% sodium bicarbonate (2 x 20 mL), water (2 x 20 mL), dried (Na₂SO₄), and concentrated to dryness to afford the racemic title compound (0.75 g, 65%) as a white amorphous substance: ¹H NMR (CD₃OD/ 400 MHz) δ 7.96 (dd 1H, J = 1.6 Hz, 8.0 Hz), 7.72 (d, 1H, J = 1.6 Hz), 7.62 (m, 1H), 7.56 (d, 1H, J = 8.0 Hz), 7.01 (m, 2H), 5.55 (abq, 2H), 3.99 (s, 2H), 2.74 (s, 3H), 2.18 (s, 3H), and 2.14 (s, 3H); ES-HRMS m/z 535.0792 (M+H calcd for C₂₃H₂₂N₄O₄F₂ Br requires 535.0787). ¹⁹F NMR(CD₃OD/ 400 MHz) -111.85 (m) and

-115.91 (m).

Preparation of (-) 3-[5-bromo-4-[(2,4
difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4methyl-N-{1-[(methylamino)carbonyl]methyl}benzamide.

20

25

The racemic compound (1.9 g) was resolved using a Chiralpak AD-H column, 21 X 250 mm. The sample was dissolved in EtOH/MeOH (50/50v/v, 25 mg/mL) and 2.7 mL of the solution was injected into the column and eluted with EtOH/MeOH (80/20

v/v) at a flow rate of 12 mL/min. Fractions with negative optical rotation were pooled together and concentrated under reduced pressure to give 0.69g of the (-) isomer as a white solid:

5 1 H NMR (CD₃OD/ 400 MHz) δ 7.96 (dd 1H, J = 2.0 Hz, 8.0 Hz), 7.72 (d, 1H, J = 2.0 Hz), 7.62 (m, 1H), 7.55 (d, 1H, J = 8.0 Hz), 7.01 (m, 2H), 5.55 (abq, 2H), 3.99 (s, 2H), 2.74 (s, 3H), 2.18 (s, 3H), and 2.14 (s, 3H); ES-HRMS m/z 535.0824 (M+H calcd for $C_{23}H_{22}N_4O_4F_2$ Br requires 535.0787). 19 F NMR (CD₃OD/ 400 MHz) -111.85 (m) and -115.90 (m).

Preparation of (+) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methyl-N-{1-[(methylamino)carbonyl]methyl}benzamide.

15

20

The title compound was isolated from the racemic material (1.9 g) according to the resolution procedure described for (-) $3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methyl-N-{1-}$

25 [(methylamino)carbonyl]methyl}benzamide. Fractions with

positive optical rotation were pooled together and concentrated under reduced pressure to give 0.82 g of the (+) isomer as an amorphous white solid: ^{1}H NMR (CD₃OD/ 400 MHz) δ 7.95 (dd 1H, J = 1.6 Hz, 8.0 Hz), 7.72 (d, 1H, J = 2.0 Hz), 7.62 (m, 1H), 7.55 (d, 1H, J = 8.4 Hz), 7.01 (m, 2H), 5.55 (abq, 2H), 3.98 (s, 2H), 2.74 (s, 3H), 2.18 (s, 3H), and 2.14 (s, 3H); ES-HRMS m/z 535.0770 (M+H calcd for C₂₃H₂₂N₄O₄F₂ Br requires 535.0787). ^{19}F NMR(CD₃OD/ 400 MHz) -111.84 (m) and -115.89 (m).

10

. 5

Preparation of (-) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzamide.

15

The racemic compound 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzamide (90.0 mg) was resolved using a Chiralpak AD column, 4.5 X 250 mm. The sample was dissolved in 30% EtOH in hexane and 30 \square L of the solution was injected into the column and eluted with 30%EtOH in hexane at a flow rate of 1.5 mL/min. Fractions with negative optical rotation were pooled together and concentrated under reduced pressure to give 39 mg of the (-) isomer as a white solid:

¹H NMR (CD₃OD/ 400 MHz) δ 7.94 (dd 1H, J = 1.6 Hz, 8.0 Hz), 7.72 (d, 1H, J = 1.6 Hz), 7.63 (m, 1H), 7.55 (d, 1H, J = 8.0

Hz), 7.01 (m, 2H), 5.55 (abq, 2H), 2.17 (s, 3H), and 2.13 (s, 3H); ES-HRMS m/z 464.0439 (M+H calcd for $C_{20}H_{17}N_3O_3F_2$ Br requires 464.0416). ¹⁹F NMR(CD₃OD/ 400 MHz) -111.86 (m) and -115.92 (m).

Preparation of (+)3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4- methylbenzamide.

The title compound was isolated from the racemic material 10 (90.0 mg) according to the resolution procedure described for (-) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6oxopyrimidin-1(6H)-yl]-4-methylbenzamide. Fractions with positive optical rotation were pooled together and concentrated under reduced pressure to give 38.5 mg of the (+) 15 isomer as a white solid: ^{1}H NMR (CD₃OD/ 400 MHz) δ 7.95 (dd 1H, J = 2.0Hz, 8.0 Hz), 7.72 (d, 1H, J = 2.0 Hz), 7.63 (m, 1H), 7.55 (d, 1H, J = 8.0 Hz), 7.01 (m, 2H), 5.55 (abg, 2H), 2.17(s, 3H), and 2.13 (s, 3H); ES-HRMS m/z 535. (M+H); ¹⁹F NMR (CD₃OD/ 400 MHz) -111.84 (m) and -115.90 (m); ES-HRMS m/z20 464.0410(M+H calcd for $C_{20}H_{17}N_3O_3F_2$ Br requires 464.0416). ¹⁹F NMR (CD₃OD/ 400 MHz) -111.86 (m) and -115.92 (m).

Preparation of (-) 3-[5-Bromo-4-[(2,4-25 difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N,4-dimethylbenzamide.

The racemic compound 3-[5-bromo-4-[(2,4-

difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N,4-dimethylbenzamide (82.0 mg) was resolved using a Chiralpak AD column, 4.5 X 250 mm. The sample was dissolved in 30%EtOH in hexane and 30 □L of the solution was injected into the column and eluted with 30%EtOH in hexane at a flow rate of 1.5

mL/min. Fractions with negative optical rotation were pooled together and concentrated under reduced pressure to give 37.6 mg of (-) isomer as a white solid:

¹H NMR (CDCl₃/ 400 MHz) δ 7.81 (dd 1H, J = 1.6 Hz, 8.0 Hz), 7.54 (m, 1H), 7.48(d, 1H J = 1.6 Hz), 7.40 (d, 1H, J = 8.0 Hz), 6.86 (m, 2H), 6.31(br, 1H), 5.48 (abq, 2H), 2.78 (d, 3H, J = 4.8 Hz), 2.14 (s, 3H), and 2.09 (s, 3H); ES-HRMS m/z 478.0580(M+H calcd for $C_{21}H_{19}N_3O_3F_2$ Br requires 478.0572). ¹⁹F NMR (CD₃OD/ 400 MHz) -109.96 (m) and

-114.02 (m).

20

Preparation of (+) 3-[5-Bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N,4-dimethylbenzamide.

The title compound was isolated from the racemic material (82.0 mg) according to the resolution procedure described for (-) 3-[5-Bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N,4-dimethylbenzamide. Fractions with positive optical rotation were pooled together and concentrated under reduced pressure to give 39.8 mg of (+) isomer as a white solid: 1 H NMR (CDCl₃/ 400 MHz) δ 7.81 (dd 1H, J = 1.6Hz, 8.0 Hz), 7.52 (m, 1H), 7.48 (d, 1H, J = 1.6 Hz), 7.41 (dd, 1H, J = 8.0 Hz), 6.85 (m, 2H), 6.28 (br, 1H), 5.50 (abq, 2H), 2.81(d, 3H, J = 4.4 Hz), and 2.14 (s, 3H), and 2.09 (s, 3H); ES-HRMS m/z 478.0577 (M+H calcd for $C_{21}H_{19}N_3O_3F_2$ Br requires 478.0572). 19 F NMR(CD₃OD/ 400 MHz) -109.97 (m) -114.03.

Preparation of (-) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methyl-N-{1-[aminocarbonyl]methyl}benzamide.

$$O$$
 Br
 O
 NH
 O
 H_2N

The racemic compound 3-(4-(2,4-difluorobenzyloxy)-5bromo-2-methyl-6-oxopyrimidin-1(6H)-yl)-N-(carbamoylmethyl)-4methylbenzamide (3.0 q) was resolved using a Chiralcel OJ-H column, 21 X 250 mm. The compound was dissolved in methanol (15 mg/mL), and injected 5 mL of the solution and eluted with methanol at a flow rate of 20.0 mL/min. Fractions with negative optical rotation were pooled together and concentrated under reduced pressure to give 1.42 g of the (-) isomer as a white solid: ^{1}H NMR (CD₃OD/ 400 MHz) δ 7.96 (dd 10 1H, J = 2.4 Hz, 10.4 Hz), 7.74 (d, 1H, J = 2.4 Hz), 7.64 (m, 1H), 7.56 (d, 1H, J = 11.2 Hz), 7.012(m, 2H), 5.58 (abq, 2H), 4.02 (s, 2H), 2.19 (s, 3H), 2.15 (s, 3H); ES-HRMS m/z 521.0615 $(M+H \text{ calcd for } C_{22}H_{20}N_4O_4F_2 \text{ Br requires } 521.0630).$ ¹⁹F NMR(CD₃OD/ 15 400 MHz) -111.85 (m) and -115.90 (m).

Preparation of (+) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methyl-N-{1-[aminocarbonyl]methyl}benzamide.

The title compound was isolated from the racemic material 5 (3.0 g) according to the resolution procedure described for (-) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6oxopyrimidin-1(6H)-yl]-4-methyl-N- $\{1-$ [aminocarbonyl] methyl benzamide. Fractions with positive optical rotation were pooled together and concentrated under reduced pressure to give 1.52 g of the (+) isomer as a white 10 solid: ¹H NMR (CD₃OD/ 400 MHz) δ 7.96 (dd 1H, J = 2.4 Hz, 10.4 Hz), 7.74 (d, 1H, J = 2.4 Hz), 7.62 (m, 1H), 7.56 (d, 1H, J =10.4 Hz), 7.02 (m, 2H), 5.58 (abq, 2H), 4.03 (s, 2H), 2.19 (s, 3H), 2.15 (s, 3H); ES-HRMS m/z 521.0670 (M+H calcd for 15 $C_{22}H_{20}N_4O_4F_2$ Br requires 521.0630). ¹⁹F NMR(CD₃OD/ 400 MHz) -111.84(m) and -115.90 (m).

Preparation of (±) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-20 2-methyl-6-oxopyrimidin-1(6H)-yl]-N-[(2S)-2,3-dihydroxypropyl]-4-methylbenzamide.

To a solution of 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoic acid (0.3 g, 0.65 mmol) in dimethylformamide (3.0 mL) at -10 °C was added isobutylchloroformate (0.13 g, 0.92 mmol) followed by the addition of N-methylmorpholine (0.130 g, 1.28 mmol). The mixture was stirred for 10 min. under argon atmosphere. The reaction mixture was then stirred at room temperature for 30 min, cooled to 0 $^{\circ}$ C, and added S -3-amino-1,2 propanediol 10 (0.118 g, 1.3 mmol). The resulting mixture was stirred at room temperature for 1.5 h, concentrated in vacuo, and the residue was purified by reverse-phase HPLC using 10-90% CH3CN/Water gradient (40 min) at a flow rate of 80 mL/min. The appropriate fractions $(MH^+, m/z = 538)$ were combined, and freeze-dried to give a white solid. This was dissolved in dichloromethane (20 15 mL), washed successively with 5% sodium bicarbonate (2 \times 15 mL), water (2 x 20 mL), dried (Na_2SO_4), and concentrated to dryness to afford the racemic title compound (0.15 g, 43%) as a white amorphous substance: ^{1}H NMR (CD₃OD/ 400 MHz) δ 7.89 (dd 1H, J = 1.6 Hz, 8.0 Hz), 7.66 (d, 1H, J = 1.6 Hz), 7.60 (m, 20 1H), 7.52 (d, 1H, J = 8.0 Hz), 7.01 (m, 2H), 5.54 (abg, 2H), 3.77 (m, 1H), 3.51 (m, 3H), 3.38 (m, 1H), 2.74 (s, 3H), and 2.11(s, 3H); ES-HRMS m/z 538.0782 (M+H calcd for $C_{23}H_{23}N_3O_5F_2$ Br requires 538.0784). 19F NMR(CD3OD/ 400 MHz) -111.85(m) and-25 115.91 (m).

Preparation of (-) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-[(2S)-2,3-dihydroxypropyl]-4-methylbenzamide.

5

The diastereomeric mixture (\pm) 3-[5-bromo-4-[(2,4difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-[(2S)-2,3-dihydroxypropyl]-4-methylbenzamide (0.15 q) was resolved 10 using a ChiralPak AD column, 21 X 250 mm. The compound was dissolved in ethanol and eluted with ethanol containing 20% hexane at a flow rate of 8.0 mL/min. Fractions with negative optical rotation were pooled together and concentrated under reduced pressure to give 70 mg of the (-) isomer as a white 15 solid: ¹H NMR (CD₃OD/ 400 MHz) δ 7.90 (dd 1H, J = 2.0 Hz, 8.0 Hz), 7.68 (d, 1H, J = 2.0 Hz), 7.60 (m, 1H), 7.56 (d, 1H, J =8.0 Hz), 7.012(m, 2H), 5.56 (abq, 2H), 3.80 (m, 1H), 3.52 (m, 3H), 3.38 (m, 1H), 2.16(s, 3H), and 2.12 (s, 3H); ES-HRMS m/z538.0793 (M+H calcd for $C_{23}H_{23}N_3O_5F_2$ Br requires 538.0784). ¹⁹F 20 NMR(CD₃OD/ 400 MHz) -111.87(m) and -115.92 (m).

Preparation of (+) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-[(2S)-2,3-dihydroxypropyl]-4-methylbenzamide.

5

The title compound was isolated from the diastereomeric 10 mixture (0.15 g) according to the resolution procedure described for (-) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2methyl-6-oxopyrimidin-1(6H)-yl]-N-[(2S)-2,3-dihydroxypropyl]-4-methylbenzamide. Fractions with positive optical rotation were pooled together and concentrated under reduced pressure to give 69.8 mg of the (+) isomer as a white solid: ¹H NMR 15 $(CD_3OD/400 \text{ MHz}) \delta 7.90 \text{ (dd 1H, } J = 2.0 \text{ Hz, } 8.0 \text{ Hz}), 7.67 \text{ (d, }$ 1H, J = 2.0 Hz), 7.60 (m, 1H), 7.56 (d, 1H, J = 8.0 Hz), 7.012(m, 2H), 5.55 (abq, 2H), 3.81 (m, 1H), 3.52 (m, 3H), 3.38 (m, 1H), 2.16(s, 3H), and 2.12(s, 3H); ES-HRMS m/z 538.0751(M+H calcd for $C_{23}H_{23}N_3O_5F_2$ Br requires 538.0784). ¹⁹F NMR(CD₃OD/ 20 400 MHz) -111.87 (m) and -115.92 (m).

Preparation of (\pm) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-[(2R)-2,3-dihydroxypropyl]-4-methylbenzamide.

5

10

15

The title compound was prepared by employing a similar procedure as described for (\pm) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-[(2S)-2,3-dihydroxypropyl]-4-methylbenzamide, substituting R-3-amino-1,2 propanediol for S-3-amino-1,2 propanediol.

Yield 46%: ¹H NMR (CD₃OD/ 400 MHz) δ 7.91 (dd 1H, J = 1.6 Hz, 8.0 Hz), 7.67 (d, 1H, J = 1.6 Hz), 7.60 (m, 1H), 7.56 (d, 1H, J = 8.0 Hz), 6.97 (m, 2H), 5.54 (abq, 2H), 3.80 (m, 1H), 3.52 (m, 3H), 3.38 (m, 1H), 2.15 (s, 3H), and 2.11 (s, 3H); ES-HRMS m/z 538.0803 (M+H calcd for $C_{23}H_{23}N_3O_5F_2$ Br requires 538.0784). ¹⁹F NMR(CD₃OD/ 400 MHz) -111.86 (m) and -115.92 (m).

Preparation of (-) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-[(2R)-20 2,3-dihydroxypropyl]-4-methylbenzamide.

The diastereomeric compound (±) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-[(2R)-2,3-dihydroxypropyl]-4-methylbenzamide (0.24 g) was resolved using a ChiralPak AD column, 21 X 250 mm. The compound was dissolved in ethanol and eluted with ethanol containing 20% hexane at a flow rate of 8.0 mL/min. Fractions with negative optical rotation were pooled together and concentrated under reduced pressure to give 0.101g of the (-) isomer as a white solid: 1 H NMR (CD₃OD/ 400 MHz) δ 7.89 (dd 1H, J = 2.0 Hz, 8.0 Hz), 7.67 (d, 1H, J = 2.0 Hz), 7.60 (m, 1H), 7.53 (d, 1H, J = 8.4 Hz), 6.98 (m, 2H), 5.56 (abq, 2H), 3.80 (m, 1H), 3.52 (m, 3H), 3.38 (m, 1H), 2.16(s, 3H), and 2.12 (s, 3H); ES-HRMS m/z 538.0740 (M+H calcd for C_{23} H₂₃N₃O₅F₂ Br requires 538.0784). 19 F NMR(CD₃OD/ 400 MHz) -111.87 (m) and -115.92 (m).

Preparation of (+) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-[(2R)-2,3-dihydroxypropyl]-4-methylbenzamide.

20

10

The title compound was isolated from the diastereomeric mixture (0.24 g) according to the resolution procedure described for (-) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-[(2R)-2,3-dihydroxypropyl]-4-methylbenzamide. Fractions with positive optical rotation were pooled together and concentrated under reduced pressure to give 0.105 g of the (+) isomer as a white solid: 1 H NMR (CD₃OD/ 400 MHz) δ 7.90 (dd 1H, J = 2.0 Hz, 8.0 Hz), 7.68 (d, 1H, J = 2.0 Hz), 7.60 (m, 1H), 7.54 (d, 1H, J = 8.0 Hz), 6.99 (m, 2H), 5.56 (abq, 2H), 3.81 (m, 1H), 3.53 (m, 3H), 3.38 (m, 1H), 2.16(s, 3H), and 2.12 (s, 3H); ES-HRMS m/z 538.0739 (M+H calcd for $C_{23}H_{23}N_3O_5F_2$ Br requires 538.0784). 19 F NMR(CD₃OD/ 400 MHz) -111.87(m) and -115.92 (m).

Preparation of (±) N-[(1S)-1-(aminocarbonyl)ethyl]-3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-20 1(6H)-yl]-4-methylbenzamide.

The title compound was prepared by employing a similar procedure as described for (±) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methyl-N-{1-[(methylamino)carbonyl]methyl}benzamide, substituting S-alanineamide hydrochloride for N-methylglycineamide hydrochloride. Yield 45%: ¹H NMR (CD₃OD/400 MHz) δ 7.96 (m,1H), 7.73 (dd, 1H, J = 2.0 Hz), 7.62 (m,1H), 7.55 (d, 1H, J = 8.0 Hz), 7.01 (m, 2H), 5.56 (abq, 2H), 4.55 (ab q, 1H), 2.18 (s, 3H), 2.14 (s, 3H), and 1.45 (d, 3H, J = 7.2Hz); ES-HRMS m/z 535.0757 (M+H calcd for C₂₃H₂₂N₄O₄F₂ Br requires 535.0787). ¹9F NMR(CD₃OD/400 MHz) -111.86 (m) and -115.90 (m).

Preparation of (-) N-[(1S)-1-(aminocarbonyl)ethyl]-3-[5-20 bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzamide.

5

10

15

The diastereomeric mixture (\pm) N-[(1S)-1-(aminocarbonyl)ethyl]-3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzamide (2.0 g) was resolved using a Chiralcel AD-H column, 21 X 250 mm. The compound was dissolved in methanol (10 mg/mL), and injected 5 mL of the solution and eluted with methanol at a flow rate of 20.0 mL/min. Fractions with negative optical rotation were pooled together and concentrated under reduced pressure to give 1.01 g of the (-) isomer as an amorphous white solid: 1 H NMR (CD₃OD/ 400 MHz) δ 7.96 (dd 1H, J = 1.6 Hz, 8.0 Hz), 7.73 (d, 1H, J = 2.0 Hz), 7.64 (m, 1H), 7.55 (d, 1H, J = 8.0 Hz), 7.012(m, 2H), 5.56 (abq, 2H), 4.53 (abq, 1H), 2.19 (s, 3H), 2.13 (s, 3H), and 1.44 (d, 3H, J = 7.2 Hz); ES-HRMS m/z 535.0750 (M+H calcd for $C_{23}H_{22}N_4O_4F_2$ Br requires 535.0787). 19 F NMR(CD₃OD/ 400 MHz) -111.88(m) and -115.91 (m).

Preparation of (+) N-[(1S)-1-(aminocarbonyl)ethyl]-3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzamide

25

5 The title compound was isolated from the diastereomeric mixture (2.0 g) according to the resolution procedure described for (-) N-[(1S)-1-(aminocarbonyl)ethyl]-3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzamide. Fractions with positive optical rotation 10 were pooled together and concentrated under reduced pressure to give 0.94 g of the (+) isomer as an amorphous white solid: ¹H NMR (CD₃OD/ 400 MHz) δ 7.95 (dd 1H, J = 2.0 Hz, 8.0 Hz), 7.75 (d, 1H, J = 2.0 Hz), 7.64 (m, 1H), 7.54 (d, 1H, J = 8.0Hz), 7.01(m, 2H), 5.56 (abg, 2H), 4.53 (abg, 1H), 2.19 (s, 3H), 2.13 (s, 3H), and 1.44 (d, 3H, J = 7.2 Hz); ES-HRMS m/z15 535.0742 (M+H calcd for $C_{23}H_{22}N_4O_4F_2$ Br requires 535.0787). ¹⁹F NMR (CD₃OD/ 400 MHz) -111.85 (m) and -115.90 (m).

Preparation of (±) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-20 2-methyl-6-oxopyrimidin-1(6H)-yl]-N-[(1R)-2-hydroxy-1-methylethyl]-4-methylbenzamide.

To a solution of 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoic acid (4.0g, 0.0086 mol) in dimethylacetamide (10.0 mL) at -20 °C was 5 added N-methylmorpholine (1.2 g, 0.012 mol), followed by the dropwise addition of a solution of isobutylchloroformate (1.58 q, 0.012 mmol) in dichloromethane (5. 0 mL). The reaction mixture was stirred for 10 min. under argon atmosphere after which it was stirred at room temperature for 20 min. The 10 reaction mixture was then cooled to 0 $^{\circ}$ C, and added R -2amino-1-propanol (0.97 q, 1.01 mol). The resulting mixture was stirred at room temperature for 1.5 h, concentrated in vacuo, and the residue was purified by reverse-phase HPLC using 10-90% CH₃CN/Water gradient (40 min) at a flow rate of 80 mL/min. 15 The appropriate fractions (MH $^{+}$, m/z = 522) were combined, and freeze-dried to give a white solid. This was dissolved in dichloromethane (20 mL), washed successively with 5% sodium bicarbonate (2 x 15 mL), water (2 x 20 mL), dried (Na₂SO₄), 20 and concentrated to dryness to afford the racemic title compound (2.2 g, 49%) as a white amorphous substance: ¹H NMR $(CD_3OD/400 \text{ MHz}) \delta 7.91(dd, 1H, J = 1.6 \text{ Hz}, & 6.4 \text{ Hz}), 7.68 (d,$ 1H, J = 1.6 Hz), 7.60 (m, 1H), 7.53 (d, 1H, J = 8.4 Hz), 7.01 (m, 2H), 5.57 (abq, 2H), 4.18 (m, 1H), 3.56 (m, 2H), 2.17 (s, 2H)3H), 2.13 (s, 3H), and 1.22(d, 3H, J = 6.8 Hz); ES-HRMS m/z25

522.0860 (M+H calcd for $C_{23}H_{23}N_3O_4F_2$ Br requires 522.0835). ¹⁹F NMR(CD₃OD/ 400 MHz) -111.85(m) and-115.90 (m).

Preparation of (±) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]
2-methyl-6-oxopyrimidin-1(6H)-yl]-N-[(1S)-2-hydroxy-1
methylethyl]-4-methylbenzamide.

10

15

20

The title compound was prepared in a similar manner as described for (±) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-[(1R)-2-hydroxy-1-methylethyl]-4-methylbenzamide substituting R -2-amino-1-propanol with S-2-amino-1-propanol. Yield 42%. ¹H NMR (CD₃OD/400 MHz) δ 7.93(d, 1H, J = 1.6 Hz, & 6.4 Hz), 7.68 (s, 1H), 7.60 (m, 1H), 7.53 (d, 1H, J = 8.0 Hz), 7.01 (m, 2H), 5.57 (abq, 2H), 4.18 (m, 1H), 3.56 (m, 2H), 2.17 (s, 3H), 2.13 (s, 3H), and 1.22(d, 3H, J = 6.8 Hz); ES-HRMS m/z 522.0821 (M+H calcd for $C_{23}H_{23}N_3O_4F_2$ Br requires 522.0835). ¹⁹F NMR(CD₃OD/400 MHz) - 111.85(m) and-115.90 (m).

Preparation of $(\pm)3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-[(2S)-2-hydroxypropyl]-4-methylbenzamide.$

5

The title compound was prepared in a similar manner as described for (\pm) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-10 methyl-6-oxopyrimidin-1(6H)-yl]-N-[(1R)-2-hydroxy-1-methylethyl]-4-methylbenzamide substituting R -2-amino-1-propanol with S-1-amino-2-propanol. Yield 47%. 1 H NMR (CD₃OD/400 MHz) δ 7.90(d, 1H, J = 1.6 Hz), 7.69 (d, 1H, J = 2.0 Hz), 7.60 (m, 1H), 7.54 (d, 1H, J = 8.0 Hz), 7.01 (m, 2H), 5.57 (abq, 2H), 4.18 (m, 1H), 3.39 (m,1H), 3.31 (m, 1H), 2.17 (s, 3H), 2.13 (s, 3H), and 1.17(d, 3H, J = 6.4 Hz); ES-HRMS m/z 522.0863 (M+H calcd for $C_{23}H_{23}N_3O_4F_2$ Br requires 522.0835). ^{19}F NMR(CD₃OD/400 MHz) -111.85(m), and-115.9.

Preparation of (-)3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-[(2S)-2-hydroxypropyl]-4-methylbenzamide.

The diastereomeric mixture (2.0 g) was resolved using a Chiralpak AD-H column, 21 X 250 mm. The compound was dissolved in ethanol(15 mg/mL), and injected 4 mL of the solution and eluted with methanol at a flow rate of 10.0 mL/min. Fractions with negative optical rotation were pooled together and concentrated under reduced pressure to give 0.95 g of the (-) isomer as a white amorphous white solid: ¹H NMR $(CD_3OD/400 \text{ MHz}) \delta 7.93 (d, 1H, J = 2.0Hz, & 6.8 Hz), 7.70 (s,$ 10 1H), 7.60 (m, 1H), 7.55 (d, 1H, J = 11.2 Hz, Hz), 7.01 (m, 2H), 5.57 (abq, 2H), 3.90 (abq, 1H), 3.38 (m,1H), 3.31 (m, 1H), 2.18 (s, 3H), 2.14 (s, 3H), and 1.18(d, 3H, J = 8.4 Hz); ES-HRMS m/z 522.0821 (M+H calcd for $C_{23}H_{23}N_3O_4F_2$ Br requires 15 522.0835). ¹⁹F NMR (CD₃OD/ 400 MHz) -111.85 (m) and-115.9.

Preparation of (+)3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-[(2S)-2-hydroxypropyl]-4-20 methylbenzamide.

The title compound was isolated from the diastereomeric mixture (2.0 g) according to the resolution procedure 5 described for (-)3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2methyl-6-oxopyrimidin-1(6H)-yl]-N-[(2S)-2-hydroxypropyl]-4methylbenzamide. Fractions with positive optical rotation were pooled together and concentrated under reduced pressure to give 0.9g of the (+) isomer as a white amorphous white solid: ¹H NMR (CD₃OD/ 400 MHz) δ 7.91(d, 1H, J = 1.6 Hz, & 8.0 Hz), 10 7.70 (s, 1H), 7.60 (m, 1H), 7.54 (d, 1H, J = 8.0 Hz, Hz), 7.01 (m, 2H), 5.57 (abq, 2H), 3.93 (m, 1H), 3.40 (m, 1H), 3.28 (m, 1H), 2.17 (s, 3H), 2.14 (s, 3H), and 1.17(d, 3H, J = 6.8 Hz); ES-HRMS m/z 522.0820 (M+H calcd for $C_{23}H_{23}N_3O_4F_2$ Br requires 522.0835). ¹⁹F NMR (CD₃OD/ 400 MHz) -111.85 (m) 15 and-115.9.

Preparation of $(\pm)3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-[(2R)-2-hydroxypropyl]-4-20 methylbenzamide.$

The title compound was prepared in a similar manner as described for (±) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-[(1R)-2-hydroxy-1-methylethyl]-4-methylbenzamide substituting R -2-amino-1-propanol with R-1-amino-2-propanol. Yield 48%. ¹H NMR (CD₃OD/10 400 MHz) δ 7.91(d, 1H, J = 1.6 Hz, & 8.0 Hz), 7.69 (d, 1H, J = 1.6 Hz), 7.60 (m, 1H), 7.54 (d, 1H, J = 8.0 Hz), 7.01 (m, 2H), 5.57 (abq, 2H), 3.90 (abq, 1H), 3.32 (m, 1H), 3.31 (m, 1H), 2.17 (s, 3H), 2.13 (s, 3H), and 1.17(d, 3H, J = 6.8 Hz); ES-HRMS m/z 522.0869 (M+H calcd for $C_{23}H_{23}N_3O_4F_2$ Br requires 522.0835). ¹⁹F NMR (CD₃OD/400 MHz) -111.85(m), and-115.90.

Preparation of (-)3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-[(2R)-2-hydroxypropyl]-4-methylbenzamide.

The diastereomeric compound (2.01g) was resolved using a 5 Chiralpak AD-H column, 21 X 250 mm. The compound was dissolved in ethanol (40 mg/mL), and injected 1.8 mL of the solution and eluted with ethanol at a flow rate of 10.0 mL/min. Fractions with negative optical rotation were pooled 10 together and concentrated under reduced pressure to give 1.01 g of the (-) isomer as a white amorphous solid: ¹H NMR (CD₃OD/ 400 Mz) 7.91 (d, 1H, J = 1.6 Hz, 8.0 Hz), 7.69 (d, 1H, J = 1.6Hz), 7.60 (m, 1H), 7.01 (m, 2H), 5.57 (abq, 2H), 3.90 (abq, 1H), 3.40 (m,1H), 3.31 (m, 1H), 2.17 (s, 3H), 2.13 (s, 3H), and 1.18(d, 3H, J = 6.4 Hz); ES-HRMS m/z 522.0831 (M+H calcd 15 for $C_{23}H_{23}N_3O_4F_2$ Br requires 522.0835). ¹⁹F NMR(CD₃OD/ 400 MHz) 111.86(m), and-115.9.

Preparation of (+)3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-[(2R)-2-hydroxypropyl]-4-methylbenzamide.

5 The title compound was isolated from the diastereomeric material (2.1 g) according to the resolution procedure described for 3-[3-bromo-6-methyl-2-oxo-4-[(2,4,6trifluorobenzyl)oxy]pyridin-1(2H)-yl]-N-[(1S)-2-hydroxy-1methylethyl]-4-methylbenzamide. Fractions with positive 10 optical rotation were pooled together and concentrated under reduced pressure to give 1.0 g of the (+) isomer as a white amorphous white solid: ^{1}H NMR (CD₃OD/ 400 MHz) δ 7.91(d, 1H, J= 1.6 Hz, & 8.0 Hz, 7.70 (s, 1H), 7.60 (m, 1H), 7.54 (d, 1H)J = 8.0 Hz), 7.01 (m, 2H), 5.57 (abg, 2H), 3.93 (m, 1H), 3.40 (m,1H), 3.28 (m, 1H), 2.17 (s, 3H), 2.14 (s, 3H), and 1.18(d, 15 3H, J = 6.4 Hz); ES-HRMS m/z 522.0830 (M+H calcd for $C_{23}H_{23}N_3O_4F_2$ Br requires 522.0835). 19F NMR(CD₃OD/ 400 MHz) -111.85(m) and-115.9.

Preparation of (±) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-(2-hydroxyethyl)-4-methylbenzamide.

The title compound was prepared in a similar manner as described for (±) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-[(1R)-2-hydroxy-1-methylethyl]-4-methylbenzamide substituting R -2-amino-1-propanol with 2-aminoethanol. Yield 70%. 1 H NMR (CD₃OD/ 400 MHz) δ 7.91 (d, 1H, J = 1.6 Hz, & 6.4 Hz), 7.68 (d, 1H, J = 2.0 Hx), 7.60 (m, 1H), 7.54 (d, 1H, J = 8.0 Hz), 7.01 (m, 2H), 5.57 (abq, 2H), 3.67 (t, 2H, J = 6.0 Hz), 3.49(t, 2H, J = 6.0 Hz), 2.17 (s, 3H), and 2.13 (s, 3H); ES-HRMS m/z 508.0659 (M+H calcd for $C_{22}H_{21}N_3O_4F_2$ Br requires 508.0678). ^{19}F NMR (CD₃OD/ 400 MHz) -111.85(m) and-115.90 (m).

Preparation of (-) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-(2-hydroxyethyl)-4-methylbenzamide.

The racemic compound (3.0g) was resolved using a Chiralpak AD-H column, 21 X 250 mm. The compound was dissolved in ethanol (15 mg/mL), and injected 4.0 mL of the solution and eluted with ethanol at a flow rate of 10.0 mL/min. Fractions with negative optical rotation were pooled together and concentrated under reduced pressure to give 1.18 g of the (-) isomer as a white amorphous solid: ¹H NMR (CD₃OD/ 400 MHz) δ 7.91 (d, 1H, J = 1.6 Hz, & 6.4 Hz), 7.68 (d, 1H, J = 2.0 Hz), 7.60 (m, 1H), 7.54 (d, 1H, J = 8.0 Hz), 7.01 (m, 2H), 5.57 (abq, 2H), 3.69 (t, 2H, J = 5.6 Hz), 3.49(t, 2H, J = 5.6 Hz), 2.17 (s, 3H), and 2.13 (s, 3H); ES-HRMS m/z 508.0636 (M+H calcd for C₂₂H₂₁N₃O₄F₂ Br requires 508.0678). ¹9F NMR (CD₃OD/ 400 MHz) -111.86 (m), and-115.90

Preparation of (+) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-(2-hydroxyethyl)-4-methylbenzamide.

The title compound was isolated from the racemic material (3.0 g) according to the resolution procedure described for (-) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-

oxopyrimidin-1 (6H)-yl]-N-(2-hydroxyethyl)-4-methylbenzamide. Fractions with positive optical rotation were pooled together and concentrated under reduced pressure to give 1.35 g of the (+) isomer as a white amorphous white solid: 1 H NMR (CD₃OD/400 MHz) δ 7.91 (d, 1H, J = 2.0 Hz, & 8.0 Hz), 7.68 (d, 1H, J = 2.0 Hz), 7.60 (m, 1H), 7.54 (d, 1H, J = 8.0 Hz), 7.01 (m, 2H), 5.57 (abq, 2H), 3.69 (t, 2H, J = 5.6 Hz), 3.49(t, 2H, J = 5.6 Hz), 2.17 (s, 3H), and 2.13 (s, 3H); ES-HRMS m/z 508.0664 (M+H calcd for $C_{22}H_{21}N_3O_4F_2$ Br requires 508.0678). 19 F NMR (CD₃OD/400 MHz) -111.86 (m), and-115.90.

15

10

5

Preparation of (\pm) N-[(1S)-1-(aminocarbonyl)propyl]-3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzamide.

20

25

The title compound was prepared in a similar manner as described for (±) 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-

methyl-6-oxopyrimidin-1(6H)-yl]-N-[(1R)-2-hydroxy-1-methylethyl]-4-methylbenzamide substituting R -2-amino-1-propanol with S-alpha- aminobutyricacid amide. Yield 49%.

¹H NMR (CD₃OD/ 400 MHz) δ 8.38 (br, 1H), 7.95 (m, 1H), 7.73 5 (d, 1H, J = 2.0 Hz), 7.60 (m, 1H), 7.55 (d, 1H, J = 8.0 Hz), 7.02 (m, 2H), 5.57 (abq, 2H), 4.44 (m 1H), 2.18 (s, 3H), and 2.13 (s, 3H), 1.90 (m, 1H), 1.78 (m, 1H), and 1.01 (t, 3H, J =7.2 Hz); ES-HRMS m/z 549.0904 (M+H calcd for C₂₄H₂₄N₄O₄F₂ Br requires 549.0943). ¹⁹F NMR(CD₃OD/ 400 MHz) -111.86 (m) and-10 115.89 (m).

Preparation of (-) N-[(1S)-1-(aminocarbonyl)propyl]-3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzamide.

15

$$O \longrightarrow Br$$

$$O \longrightarrow NH$$

$$O$$

The diastereomeric mixture (0.9g) was resolved using a Chiralpak AD-H column, 21 X 250 mm. The compound was dissolved in methanol (15 mg/mL), and injected 2.7 mL of the solution and eluted with ethanol at a flow rate of 20.0

mL/min. Fractions with negative optical rotation were pooled together and concentrated under reduced pressure to give 0.4 g of the (-) isomer as a white amorphous solid: 1H NMR (CD₃OD/ 400 MHz) δ 7.95 (dd, 1H, J = 2.0 Hz, and 8.0 Hz), 7.73 (d, 1H, J = 1.6 Hz), 7.60 (m, 1H), 7.55 (d, 1H, J = 8.0 Hz), 7.01 (m, 2H), 5.57 (abq, 2H), 4.43 (m 1H), 2.18 (s, 3H), and 2.13 (s, 3H), 1.85 (m, 1H), 1.79 (m, 1H), and 1.01 (t, 3H, J = 7.6 Hz); ES-HRMS m/z 549.0928 (M+H calcd for $C_{24}H_{24}N_4O_4F_2$ Br requires 549.0943). ^{19}F NMR(CD₃OD/ 400 MHz) -111.86 (m) and -115.89 (m).

10

Preparation of (+) N-[(1S)-1-(aminocarbonyl)propyl]-3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzamide.

15

$$O \longrightarrow P$$

$$O \longrightarrow$$

The title compound was isolated from the diastereomeric

20 material (0.9 g) according to the resolution procedure

described for (-) N-[(1S)-1-(aminocarbonyl)propyl]-3-[5-bromo4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]4-methylbenzamide. Fractions with positive optical rotation

were pooled together and concentrated under reduced pressure to give 0.52 g of the (+) isomer as an amorphous white solid: $^1\mathrm{H}$ NMR (CD₃OD/ 400 MHz) δ 7.93 (dd, 1H, J = 2.0 Hz, and 8.0 Hz), 7.75 (d, 1H, J = 2.0 Hz), 7.60 (m, 1H), 7.55 (d, 1H, J = 8.0 Hz), 7.01 (m, 2H), 5.56 (abq, 2H), 4.44 (m 1H), 2.18 (s, 3H), 2.14 (s, 3H), 1.85 (m, 1H), 1.79 (m, 1H), and 1.01 (t, 3H, J = 7.2 Hz); ES-HRMS m/z 549.0928 (M+H calcd for $\mathrm{C}_{24}\mathrm{H}_{24}\mathrm{N}_4\mathrm{O}_4\mathrm{F}_2$ Br requires 549.0943). $^{19}\mathrm{F}$ NMR (CD₃OD/ 400 MHz) $^{-111.86}$ (m), and 115.89 (m).

1

10

Preparation of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[1-(aminocarbonyl)methyl]-4-methylbenzamide.

15

Step 1: Preparation of methyl 3-[4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoate

20

Methyl $3-[4-[(2,4-\text{difluorobenzyl})\,\text{oxy}]-2-(\text{methylthio})-6-$ oxopyrimidin-1(6H)-yl]-4-methylbenzoate (87 g, 0.20 mol) was dissolved in N,N-dimethylacetamide (870 mL) and heated to

25

Raney Ni was added and slight exotherm and off-gasing were observed. Reaction was complete. Heat and stirring were turned off. Since product had begun to precipitate from the cooled reaction mixture, heat was turned back on to 70°C and stirring resumed. After redissolving the precipitate, the reaction mixture was allowed to cool for 15 min and then filtered through celite. Rinsed with 50°C DMA and water, being careful not to let the celite pad go dry. The filtrate was added to 2L of water and stirred. Product filtered, rinsed with water, and dried in the vacuum oven. When found to still 10 be wet with DMA, slurried with water and stirred 1h before filtering and redrying. Obtained the product as a white solid (63 g, 81%). ¹H NMR (CD₃OD/ 400MHz) δ 8.28 (s, 1H), 8.04 (m, 1H), 7.90 (s, 1H), 7.55 (m, 2H), 6.99 (m, 2H), 5.87 (s, 1H), 5.39 (s, 2H), 3.88 (s, 3H), 2.19 (s, 3H). ESHRMS m/z 387.1195 15 (M+H calculated for $C_{20}H_{17}F_2N_2O_4$ requires 387.1151).

Step 2: Preparation of 3-[4-[(2,4-difluorobenzyl)oxy]-6-20 oxopyrimidin-1(6H)-yl]-4-methylbenzoic acid

To a solution of methyl 3-[4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoate (from Step 1) (7.56 g, 19.6 mmol) in dioxane (30 mL) was added 2N NaOH (14.7 mL). Stirred at ambient temperature for 1h. Concentrated to ~20 mL under reduced pressure. Cooled to 0°C and added 5% citric acid to precipitate solid, filtered the precipitate, rinsed with water, and dried in vacuo overnight. Obtained product as an

orange solid (6.62 g, 91%). Used without further purification. 1 H NMR (CD₃OD/ 400MHz) $\delta 8.28$ (s, 1H), 8.04 (m, 1H), 7.88 (s, 1H), 7.56 (q, 1H, J=8.4 Hz), 7.50 (d, 1H, J=8.0 Hz), 6.99 (m, 2H), 5.87 (s, 1H), 5.39 (s, 2H), 2.19 (s, 3H). ESHRMS m/z 373.1001 (M+H calculated for $C_{19}H_{15}F_{2}N_{2}O_{4}$ requires 373.0994).

Step 3: Preparation of 3-[5-chloro-4-[(2,410 difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoic
acid

3-[4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-415 methylbenzoic acid (from Step 2) (6.62 g, 17.8 mmol), Nchlorosuccinimide (2.85 g, 21.3 mmol), and dichloroacetic acid
 (4 mL) are combined in dichloroethane (50 mL) and heated at
 65°C for 65h. The reaction mixture is cooled to 0°C and the
 precipitate is filtered, washed with cold dichloroethane, and
20 dried in vacuo. Product obtained as a white solid (3.47 g,
 48%). Used without further purification. ¹H NMR (CD₃OD/
 300MHz) δ8.32 (s, 1H), 8.09 (m, 1H), 7.94 (s, 1H), 7.62 (q, 1H,
 J = 8.4 Hz), 7.54 (d, 1H, J = 7.8 Hz), 7.03 (m, 2H), 5.61 (s,
 2H), 2.21 (s, 3H).

25

Step 4: Preparation of the title compound (3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[1-(aminocarbonyl)methyl]-4-methylbenzamide)

To a cooled (0°C) solution of 3-[5-chloro-4-[(2,4difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoic acid (from Step 3) (0.25 g, 0.61 mmol) in DMA (2 mL) was added isobutyl chloroformate (0.96 mL stock solution prepared 0.1 mL in 0.9 mL DCM, 0.74 mmol) and 4-methylmorpholine (0.88 mL stock solution prepared 0.1 mL in 0.9 mL DMA, 0.80 mmol). Stirred at 0°C for 5 min, ambient temperature for 30 min. Added NMM (0.1 mL, 0.92 mmol), glycineamide HCl (0.10 g, 0.92 mmol), and DMAP (0.01 g, 0.06 mmol) and stirred at ambient temperature for 1.5h. Removed DMA under reduced pressure. 10 Purified crude product by preparatory HPLC using a 10-90% CH₃CN/H₂O (30 min) gradient containing 0.5% TFA at a flow rate of 80 mL/min. Appropriate fractions (M+H m/z = 463) were combined and concentrated to approximately 20 mL under reduced pressure. Added 5% NaHCO3 (20 mL) and extracted with DCM (3 x 15 mL). The organic extracts were dried over Na₂SO₄, filtered, concentrated under reduced pressure, and dried in vacuo to give the desired product as an off-white solid (77 mg, 27%). ¹H NMR (CD₃OD/ 400MHz) $\delta 8.32$ (s, 1H), 7.96 (m, 1H), 7.80 (s, 1H), 7.61 (m, 1H), 7.54 (m, 1H), 7.01 (m, 2H), 5.60 (m, 2H), 20 4.01 (s, 2H), 2.20 (s, 3H). ESHRMS m/z 463.0990 (M+H calculated for $C_{21}H_{18}ClF_2N_4O_4$ requires 463.0979).

Preparation of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-25 oxopyrimidin-1(6H)-yl]-4-methyl-N-{1-[(methylamino)carbonyl]methyl}benzamide.

The title compound was prepared using a procedure similar to that used in Step 4 of the synthesis of 3-[5-chloro-4- [(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[1- (aminocarbonyl)methyl]-4-methylbenzamide by substituting glycine methyl amide HCl for glycineamide HCl. 1 H NMR (CD₃OD/ 400MHz) $\delta 8.32$ (s, 1H), 7.96 (m, 1H), 7.81 (s, 1H), 7.61 (q, 1H, J=8.4 Hz), 7.55 (d, 1H, J=8.0 Hz), 7.02 (m, 2H), 5.60 (m, 2H), 3.99 (s, 2H), 2.74 (s, 3H), 2.21 (s, 3H). ESHRMS m/z 477.1141 (M+H calculated for $C_{22}H_{20}ClF_2N_4O_4$ requires 477.1136).

Preparation of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-15 oxopyrimidin-1(6H)-yl]-N-[(2S)-2,3-dihydroxypropyl]-4methylbenzamide.

20

The title compound was prepared using a procedure similar to that used in Step 4 of the synthesis of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[1-

(aminocarbonyl) methyl]-4-methylbenzamide by substituting (S)-(-)-3-amino-1,2-propanediol for glycineamide HCl. ¹H NMR (CD₃OD/ 400MHz) $\delta 8.32$ (s, 1H), 7.92 (m, 1H), 7.77 (s, 1H), 7.61 (q, 1H, J = 8.4 Hz), 7.53 (d, 1H, J = 8.0 Hz), 7.02 (m, 2H), 5.60 (m, 2H), 3.81 (m, 1H), 3.55 (m, 3H), 3.39 (m, 1H), 2.20 (s, 3H). ESHRMS m/z 480.1131 (M+H calculated for $C_{22}H_{21}ClF_2N_3O_5$ requires 480.1132).

Preparation of N-[(1S)-1-(aminocarbonyl)ethyl]-3-[5-10 chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4methylbenzamide.

The title compound was prepared using a procedure similar to that used in Step 4 of the synthesis of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[1-(aminocarbonyl)methyl]-4-methylbenzamide by substituting L-alaninamide HCl for glycineamide HCl. ¹H NMR (CD₃OD/ 400MHz)

88.32 (s, 1H), 7.96 (m, 1H), 7.82 (m, 1H), 7.61 (q, 1H, J = 6.4 Hz), 7.53 (d, 1H, J = 8.0 Hz), 7.02 (m, 2H), 5.60 (m, 2H), 4.55 (q, 1H, J = 6.0 Hz), 2.20 (s, 3H), 1.45 (d, 3H, J = 6.0 Hz). ESHRMS m/z 477.1141 (M+H calculated for C₂₂H₂₀ClF₂N₄O₄ requires 477.1136).

25

Preparation of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[(1S)-2-hydroxy-1-methylethyl]-4-methylbenzamide.

$$O = \bigcup_{N=1}^{N+1} \bigcup_{N=1}^{N$$

The title compound was prepared using a procedure similar to that used in Step 4 of the synthesis of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[1-(aminocarbonyl)methyl]-4-methylbenzamide by substituting (S)-(+)-2-amino-1-propanol for glycineamide HCl. 1 H NMR (CD₃OD/400MHz) δ 8.32 (s, 1H), 7.92 (m, 1H), 7.77 (s, 1H), 7.61 (q, 1H, J = 8.4 Hz), 7.52 (d, 1H, J = 8.0 Hz), 7.02 (m, 2H), 5.60 (m, 2H), 4.16 (m, 1H), 3.58 (m, 2H), 2.20 (s, 3H), 1.22 (d, 3H, J = 6.0 Hz). ESHRMS m/z 464.1198 (M+H calculated for $C_{22}H_{21}ClF_{2}N_{3}O_{4}$ requires 464.1183).

Preparation of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-(2-hydroxyethyl)-4-methylbenzamide.

The title compound was prepared using a procedure similar to that used in Step 4 of the synthesis of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[1-(aminocarbonyl)methyl]-4-methylbenzamide by substituting ethanolamine for glycineamide HCl. ¹H NMR (CD₃OD/ 400MHz)

 $\delta 8.32$ (s, 1H), 7.92 (m, 1H), 7.77 (s, 1H), 7.61 (q, 1H, J=8.0 Hz), 7.53 (d, 1H, J=8.0 Hz), 7.02 (m, 2H), 5.60 (m, 2H), 3.69 (t, 2H, J=5.6 Hz), 3.49 (t, 2H, J=5.6 Hz), 2.20 (s, 3H). ESHRMS m/z 450.1029 (M+H calculated for $C_{21}H_{19}ClF_2N_3O_4$ requires 450.1027).

Preparation of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[(1R)-2-hydroxy-1-methylethyl]-4-methylbenzamide.

10

The title compound was prepared using a procedure similar to that used in Step 4 of the synthesis of 3-[5-chloro-4- [(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[1- (aminocarbonyl)methyl]-4-methylbenzamide by substituting (R)-(-)-2-amino-1-propanol for glycineamide HCl. 1 H NMR (CD₃OD/400MHz) δ 8.32 (s, 1H), 7.92 (m, 1H), 7.77 (s, 1H), 7.61 (q, 1H, J = 8.0 Hz), 7.52 (d, 1H, J = 8.0 Hz), 7.02 (m, 2H), 5.60 (m, 2H), 4.16 (q, 1H, J = 6.4 Hz), 3.56 (m, 2H), 2.20 (s, 3H), 1.22 (d, 3H, J = 6.0 Hz). ESHRMS m/z 464.1186 (M+H calculated for $C_{22}H_{21}ClF_2N_3O_4$ requires 464.1183).

Preparation of 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-25 oxopyrimidin-1(6H)-yl]-N-[1-(aminocarbonyl)methyl]-N,4dimethylbenzamide.

15

$$O = \begin{pmatrix} O & CI \\ N & N \end{pmatrix} = \begin{pmatrix} O$$

The title compound was prepared using a procedure similar to that used in Step 4 of the synthesis of 3-[5-chloro-4
[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[1(aminocarbonyl)methyl]-4-methylbenzamide by substituting sarcosinamide HCl for glycineamide HCl. ¹H NMR (CD₃OD/ 400MHz)

88.31 (m, 1H), 7.61 (m, 2H), 7.52 (m, 2H), 7.02 (m, 2H), 5.59
(m, 2H), 4.19 (s, 1H), 4.01 (s, 1H), 3.07 (s, 3H), 2.18 (m, 3H). ESHRMS m/z 477.1158 (M+H calculated for C₂₂H₂₀ClF₂N₄O₄ requires 477.1136).

Preparation of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[(2R)-2,3-dihydroxypropyl]-4-methylbenzamide.

The title compound was prepared using a procedure similar to that used in Step 4 of the synthesis of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[1-(aminocarbonyl)methyl]-4-methylbenzamide by substituting (R)-(+)-3-amino-1,2-propanediol for glycineamide HCl. 1 H NMR (CD₃OD/ 400MHz) $\delta 8.32$ (s, 1H), 7.92 (m, 1H), 7.77 (s, 1H), 7.61

(q, 1H, J = 8.0 Hz), 7.53 (d, 1H, J = 8.0 Hz), 7.02 (m, 2H), 5.60 (m, 2H), 3.81 (m, 1H), 3.54 (m, 3H), 3.39 (m, 1H), 2.20 (s, 3H). ESHRMS m/z 480.1117 (M+H calculated for $C_{22}H_{21}ClF_2N_3O_5$ requires 480.1132).

5

Preparation of N-[(1R)-1-(aminocarbonyl)-2-hydroxyethyl]-3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methylbenzamide.

$$O = O$$

$$O =$$

10

25

The title compound was prepared using a procedure similar to that used in Step 4 of the synthesis of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[1-(aminocarbonyl)methyl]-4-methylbenzamide by substituting L-serinamide HCl for glycineamide HCl. ¹H NMR (CD₃OD/ 400MHz) 88.32 (s, 1H), 7.98 (m, 1H), 7.85 (m, 1H), 7.61 (q, 1H, J = 8.4 Hz), 7.55 (d, 1H, J = 8.0 Hz), 7.01 (m, 2H), 5.60 (m, 2H), 4.63 (m, 1H), 3.89 (d, 2H, J = 5.6 Hz), 2.21 (s, 3H). ESHRMS m/z 493.1129 (M+H calculated for C₂₂H₂₀ClF₂N₄O₅ requires 493.1085).

Preparation of N-[(1R)-1-(aminocarbonyl)ethyl]-3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methylbenzamide.

$$O \longrightarrow CI$$

$$O \longrightarrow NH$$

$$H_3C \longrightarrow O$$

$$H_2N$$

The title compound was prepared using a procedure similar to that used in Step 4 of the synthesis of 3-[5-chloro-4- [(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[1- (aminocarbonyl)methyl]-4-methylbenzamide by substituting D- alanine amide HCl for glycineamide HCl. 1 H NMR (CD₃OD/ 400MHz) $\delta 8.32$ (s, 1H), 7.96 (m, 1H), 7.82 (m, 1H), 7.61 (q, 1H, J=8.4 Hz), 7.53 (d, 1H, J=8.0 Hz), 7.02 (m, 2H), 5.60 (m, 2H), 4.54 (q, 1H, J=6.0 Hz), 2.20 (s, 3H), 1.45 (d, 3H, J=6.0 Hz). ESHRMS m/z 477.1104 (M+H calculated for $C_{22}H_{20}ClF_{2}N_{4}O_{4}$ requires 477.1136).

Preparation of 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6oxopyrimidin-1(6H)-yl]-N-[(1S)-2-hydroxy-1-methylethyl]-4methylbenzamide.

$$O = NH$$

$$H_3CI$$

$$HO$$

$$HO$$

$$H_3CI$$

20

Step 1: Preparation of 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoic acid

25

20

25

To a cooled (0°C) solution of 3-[4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoic acid (5.76 g, 15.5 mmol) in DCM (35 mL) was added NBS (2.48 g, 13.9 mmol). Allowed reaction to warm to ambient temperature. After 5h, cooled (0°C) reaction mixture, filtered solid, washed with cold DCM and cold hexane, and dried in vacuo. Obtained product as orange solid (5.57 g, 80%). Used without further purification. 1 H NMR (CD₃OD/ 400MHz) δ 8.29 (s, 1H), 8.05 (m, 1H), 7.91 (s, 1H), 7.60 (q, 1H, J = 8.0 Hz), 7.51 (d, 1H, J = 8.0 Hz), 6.99 (m, 2H), 5.57 (s, 2H), 2.17 (s, 3H). ESHRMS m/z 451.0095 (M+H calculated for $C_{19}H_{14}BrF_{2}N_{2}O_{4}$ requires 451.0100).

15 Step 2: Preparation of the title compound 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[(1S)-2-hydroxy-1-methylethyl]-4-methylbenzamide

To a cooled (0°C) solution of 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoic acid (from Step 1) (0.80 g, 1.77 mmol) in DMA (3.2 mL) was added isobutyl chloroformate (0.28 mL, 2.13 mmol) and 4-methylmorpholine (0.25 mL, 2.30 mmol). Stirred at 0°C for 5 min, ambient temperature for 30 min. Added (S)-(+)-2-amino-1-propanol (0.21 mL, 2.66 mmol) and DMAP (0.02 g, 0.18 mmol). Stirred at ambient temperature overnight. Purified crude product by preparatory HPLC using a 10-90% CH_3CN/H_2O (30 min) gradient containing 0.5% TFA at a flow rate of 80 mL/min. Appropriate fractions (M+H m/z = 509) were combined and concentrated to approximately 20 mL under reduced pressure.

Added 5% NaHCO₃ (20 mL) and extracted with DCM (3 x 15 mL). The organic extracts were dried over Na₂SO₄, filtered, concentrated under reduced pressure, and dried *in vacuo* to give the desired product as a pale yellow foam (0.61 g, 67%). 1 H NMR (CD₃OD/ 400MHz) δ 8.32 (s, 1H), 7.92 (m, 1H), 7.76 (s, 1H), 7.61 (q, 1H, J = 8.0 Hz), 7.52 (d, 1H, J = 8.0 Hz), 7.01 (m, 2H), 5.60 (m, 2H), 4.16 (m, 1H), 3.57 (m, 2H), 2.19 (s, 3H), 1.22 (d, 3H, J = 5.6 Hz). ESHRMS m/z 508.0666 (M+H calculated for $C_{22}H_{21}BrF_{2}N_{3}O_{4}$ requires 508.0678).

10

Preparation of 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[(1R)-2-hydroxy-1-methylethyl]-4-methylbenzamide.

15

20

25

The title compound was prepared using a procedure similar to that used in Step 4 of the synthesis of 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[(1S)-2-hydroxy-1-methylethyl]-4-methylbenzamide by substituting (R)-(-)-2-amino-1-propanol for (S)-(-)-2-amino-1-propanol HCl. ¹H NMR (CD₃OD/ 400MHz) δ 8.32 (s, 1H), 7.92 (m, 1H), 7.76 (s, 1H), 7.61 (q, 1H, J = 8.0 Hz), 7.52 (d, 1H, J = 8.0 Hz), 7.01 (m, 2H), 5.59 (m, 2H), 4.16 (m, 1H), 3.57 (m, 2H), 2.19 (s, 3H),

1.22 (d, 3H, J = 6.0 Hz). ESHRMS m/z = 508.0684 (M+H calculated for $C_{22}H_{21}BrF_2N_3O_4$ requires 508.0678).

Preparation of 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-5 oxopyrimidin-1(6H)-yl]-N,4-dimethylbenzamide.

10

The title compound was prepared using a procedure similar to that used in Step 2 of the synthesis of 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[(1S)-2-15 hydroxy-1-methylethyl]-4-methylbenzamide by substituting methylamine for (S)-(+)-2-amino-1-propanol. ¹H NMR (CD₃OD/400MHz) $\delta 8.31$ (s, 1H), 7.88 (m, 1H), 7.72 (s, 1H), 7.61 (q, 1H, J = 8.0 Hz), 7.51 (d, 1H, J = 8.0 Hz), 7.01 (m, 2H), 5.58 (m, 2H), 2.89 (s, 3H), 2.18 (s, 3H). ESHRMS m/z 481.0684 (M+H calculated for $C_{20}H_{16}BrF_2N_3O_3$ NH₄ requires 481.0681).

Preparation of N-[1-(aminocarbonyl)methyl]-3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methylbenzamide.

25

$$O = \bigcup_{N \in \mathbb{N}} O = \bigcup_{N \in \mathbb{N}} Br$$

$$O = \bigcup_{N \in \mathbb{N}} O = \bigcup_{N \in \mathbb{N}}$$

The title compound was prepared using a procedure similar to that used in Step 2 of the synthesis of 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[(1S)-2-hydroxy-1-methylethyl]-4-methylbenzamide by substituting glycineamide HCl for (S)-(+)-2-amino-1-propanol. 1 H NMR (CD₃OD/ 400MHz) δ 8.32 (s, 1H), 7.95 (m, 1H), 7.80 (s, 1H), 7.61 (q, 1H, J = 8.4 Hz), 7.53 (d, 1H, J = 8.0 Hz), 7.01 (m, 2H), 5.58 (m, 2H), 4.01 (s, 2H), 2.20 (s, 3H). ESHRMS m/z 507.0474 (M+H calculated for C₂₁H₁₈BrF₂N₄O₄ requires 507.0474).

Preparation of N-[(1R)-1-(aminocarbonyl)ethyl]-3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methylbenzamide.

$$O \longrightarrow NH$$

$$H_3C \longrightarrow O$$

$$H_2N$$

$$F$$

20

The title compound was prepared using a procedure similar to that used in Step 2 of the synthesis of 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[(1S)-2-hydroxy-1-methylethyl]-4-methylbenzamide by substituting D-alanine amide HCl for (S)-(+)-2-amino-1-propanol. ¹H NMR $(CD_3OD/400MHz)$ $\delta 8.32$ (s, 1H), 7.96 (m, 1H), 7.82 (m, 1H), 7.62 (q, 1H, J = 8.0 Hz), 7.53 (d, 1H, J = 8.0 Hz), 7.01 (m, 2H), 5.59 (m, 2H), 4.54 (q, 1H, J = 6.0 Hz), 2.20 (s, 3H), 1.45 (d, 3H, J = 6.0 Hz). ESHRMS m/z 521.0593 (M+H) calculated for $C_{22}H_{20}BrF_2N_4O_4$ requires 521.0630).

Preparation of N-[(1S)-1-(aminocarbonyl)propyl]-3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methylbenzamide.

15

10

$$O \longrightarrow CI$$

$$O \longrightarrow NH$$

$$H_2N$$

$$F$$

20

25

The title compound was prepared using a procedure similar to that used in Step 4 of the synthesis of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[1-(aminocarbonyl)methyl]-4-methylbenzamide by substituting L-alpha-aminobutyric acid amide for glycineamide HCl. 1 H NMR (CD₃OD/ 400MHz) δ 8.32 (s, 1H), 7.95 (m, 1H), 7.83 (m, 1H), 7.61 (q, 1H, J = 8.0 Hz), 7.54 (d, 1H, J = 8.0 Hz), 7.01 (m, 2H), 5.60 (m, 2H), 4.45 (m, 1H), 2.20 (s, 3H), 1.93 (m, 1H), 1.79

(m, 1H), 1.01 (t, 3H, J = 7.6 Hz). ESHRMS m/z 491.1303 (M+H calculated for $C_{23}H_{22}ClF_2N_4O_4$ requires 491.1292).

Preparation of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[(2S)-2-hydroxypropyl]-4-methylbenzamide.

$$O = \bigvee_{NH} O \bigvee_{N} O \bigvee_{N} O \bigvee_{N} F$$

10

25

The title compound was prepared using a procedure similar to that used in Step 4 of the synthesis of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[1
(aminocarbonyl)methyl]-4-methylbenzamide by substituting (S)-(+)-1-amino-2-propanol for glycineamide HCl. 1 H NMR (CD₃OD/400MHz) δ 8.32 (s, 1H), 7.92 (m, 1H), 7.77 (s, 1H), 7.61 (q, 1H, J = 8.0 Hz), 7.53 (d, 1H, J = 8.0 Hz), 7.02 (m, 2H), 5.60 (m, 2H), 3.93 (m, 1H), 3.39 (m, 2H), 2.20 (s, 3H), 1.18 (d, 3H, J = 6.4 Hz). ESHRMS m/z 464.1154 (M+H calculated for $C_{22}H_{21}ClF_2N_3O_4$ requires 464.1183).

Preparation of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[(2R)-2-hydroxypropyl]-4-methylbenzamide.

$$O \longrightarrow CI$$

$$O \longrightarrow NH$$

$$CH_3$$

The title compound was prepared using a procedure similar to that used in Step 4 of the synthesis of 3-[5-chloro-4- [(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[1- (aminocarbonyl)methyl]-4-methylbenzamide by substituting (R)-(-)-1-amino-2-propanol for glycineamide HCl. 1 H NMR (CD₃OD/ 400MHz) δ 8.32 (s, 1H), 7.92 (m, 1H), 7.77 (s, 1H), 7.61 (q, 1H, J = 8.0 Hz), 7.53 (d, 1H, J = 8.0 Hz), 7.02 (m, 2H), 5.60 (m, 2H), 3.94 (m, 1H), 3.30 (m, 2H), 2.20 (s, 3H), 1.18 (s, 3H). ESHRMS m/z 464.1167 (M+H calculated for $C_{22}H_{21}ClF_2N_3O_4$ requires 464.1183).

Preparation of 5-chloro-6-[(2,4-difluorobenzyl)oxy]-3-(5-15 {[(3S)-3-hydroxypyrrolidin-1-yl]carbonyl}-2methylphenyl)pyrimidin-4(3H)-one.

20

The title compound was prepared using a procedure similar to that used in Step 4 of the synthesis of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[1-

(aminocarbonyl)methyl]-4-methylbenzamide by substituting (S)-3-hydroxypyrrolidine for glycineamide HCl. 1 H NMR (CD₃OD/400MHz) $\delta 8.31$ (d, 1H, J=7.6 Hz), 7.62 (m, 2H), 7.52 (m, 2H), 7.01 (m, 2H), 5.59 (m, 2H), 4.42 (m, 1H), 3.64 (m, 4H), 2.19 (s, 3H), 2.00 (m, 2H). ESHRMS m/z 476.1147 (M+H calculated for $C_{23}H_{21}ClF_{2}N_{3}O_{4}$ requires 476.1183).

Preparation of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methyl-N-1H-pyrazol-3-ylbenzamide.

10

15

20

The title compound was prepared using a procedure similar to that used in Step 4 of the synthesis of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[1-(aminocarbonyl)methyl]-4-methylbenzamide by substituting 3-aminopyrazole for glycineamide HCl. 1 H NMR (CD₃OD/ 400MHz) $\delta 8.37$ (s, 1H), 8.14 (m, 2H), 8.08 (s, 1H), 7.60 (m, 2H), 7.01 (m, 2H), 6.06 (d, 1H, J=3.2 Hz), 5.60 (s, 2H), 2.23 (s, 3H).

Preparation of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-25 oxopyrimidin-1(6H)-yl]-N-(2-methoxyethyl)-4-methylbenzamide.

15

The title compound was prepared using a procedure similar to that used in Step 4 of the synthesis of 3-[5-chloro-4- [(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[1- (aminocarbonyl)methyl]-4-methylbenzamide by substituting 2-methoxyethylamine for glycineamide HCl. 1 H NMR (CD₃OD/ 400MHz) $\delta 8.32$ (s, 1H), 7.91 (m, 1H), 7.75 (s, 1H), 7.61 (q, 1H, J=8.4 Hz), 7.52 (d, 1H, J=8.0 Hz), 7.02 (m, 2H), 5.60 (m, 2H), 3.55 (s, 4H), 3.35 (s, 3H), 2.19 (s, 3H). ESHRMS m/z 464.1142 (M+H calculated for $C_{22}H_{21}ClF_{2}N_{3}O_{4}$ requires 464.1183).

Preparation of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methyl-N-[(2S)-tetrahydrofuran-2-ylmethyl]benzamide.

The title compound was prepared using a procedure similar to that used in Step 4 of the synthesis of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[1-(aminocarbonyl)methyl]-4-methylbenzamide by substituting (S)-

(+)-tetrahydrofurfurylamine for glycineamide HCl. 1 H NMR (CD₃OD/ 400MHz) $\delta 8.32$ (s, 1H), 7.91 (m, 1H), 7.76 (s, 1H), 7.61 (q, 1H, J = 8.0 Hz), 7.52 (d, 1H, J = 8.4 Hz), 7.01 (m, 2H), 5.60 (m, 2H), 4.08 (m, 1H), 3.87 (q, 1H, J = 6.8 Hz), 3.74 (q, 1H, J = 7.6 Hz), 3.49 (m, 1H), 3.39 (m, 1H), 2.19 (s, 3H), 2.01 (m, 1H), 1.91 (m, 2H), 1.64 (m, 1H). ESHRMS m/z 490.1308 (M+H calculated for $C_{24}H_{23}ClF_{2}N_{3}O_{4}$ requires 490.1340).

Preparation of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-10 oxopyrimidin-1(6H)-yl]-4-methyl-N-[(2R)-tetrahydrofuran-2ylmethyl]benzamide.

The title compound was prepared using a procedure similar to that used in Step 4 of the synthesis of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[1-(aminocarbonyl)methyl]-4-methylbenzamide by substituting (R)-(-)-tetrahydrofurfurylamine for glycineamide HCl. ¹H NMR

20 (CD₃OD/ 400MHz) δ8.32 (s, 1H), 7.91 (m, 1H), 7.76 (s, 1H), 7.61 (q, 1H, J = 8.4 Hz), 7.52 (d, 1H, J = 8.0 Hz), 7.02 (m, 2H), 5.59 (m, 2H), 4.08 (m, 1H), 3.87 (q, 1H, J = 6.8 Hz), 3.74 (q, 1H, J = 7.6 Hz), 3.49 (m, 1H), 3.39 (m, 1H), 2.19 (s, 3H), 2.01 (m, 1H), 1.93 (m, 2H), 1.64 (m, 1H). ESHRMS m/z 490.1366 (M+H calculated for C₂₄H₂₃ClF₂N₃O₄ requires 490.1340).

Preparation of 5-chloro-6- $[(2,4-difluorobenzyl)oxy]-3-(5-\{[(3R)-3-hydroxypyrrolidin-1-yl]carbonyl\}-2-methylphenyl)pyrimidin-4(3H)-one.$

5

20

The title compound was prepared using a procedure similar to that used in Step 4 of the synthesis of 3-[5-chloro-4- [(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[1- (aminocarbonyl)methyl]-4-methylbenzamide by substituting (R)-(+)-3-pyrrolidinol for glycineamide HCl. 1 H NMR (CD₃OD/ 400MHz) δ 8.31 (d, 1H, J = 7.6 Hz), 7.62 (m, 2H), 7.52 (m, 2H), 7.01 (m, 2H), 5.51 (m, 2H), 4.42 (m, 1H), 3.65 (m, 4H), 2.19 (s, 3H), 2.00 (m, 2H). ESHRMS m/z 476.1175 (M+H calculated for $C_{23}H_{21}ClF_2N_3O_4$ requires 476.1183).

Preparation of 3-[4-[(2,4-difluorobenzyl)oxy]-5-ethyl-6-oxopyrimidin-1(6H)-yl]-N-[(1R)-2-hydroxy-1-methylethyl]-4-methylbenzamide.

$$O \longrightarrow NH$$
 $O \longrightarrow NH$
 $O \longrightarrow F$
 $O \longrightarrow F$
 $O \longrightarrow F$

Step 1: Preparation of methyl 3-[4-[(2,4-difluorobenzyl)oxy]-5-iodo-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoate

To a suspension of methyl 3-[4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoate (2.53 g, 6.55 mmol) and dichloroacetic acid (0.27 mL, 3.27 mmol) in acetonitrile (20 mL) was added N-iodosuccinimide (1.62 g, 7.20 mmol). Stirred at ambient temperature for 3.5h. Cooled reaction

10 mixture (0°C), filtered solid, washed with cold acetonitrile, and dried in vacuo overnight. Obtained product as white solid (2.72 g, 81%). ¹H NMR (CD₃OD/ 400MHz) δ8.24 (s, 1H), 8.07 (m, 1H), 7.93 (s, 1H), 7.63 (q, 1H, J = 8.4 Hz), 7.54 (d, 1H, J = 8.0 Hz), 7.01 (t, 2H, J = 8.4 Hz), 5.57 (s, 2H), 3.90 (s, 3H), 2.19 (s, 3H). ESHRMS m/z 513.0143 (M+H calculated for C₂₀H₁₆F₂IN₂O₄ requires 513.0117).

Step 2: Preparation of methyl 3-[4-[(2,4-difluorobenzyl)oxy]-6-oxo-5-vinylpyrimidin-1(6H)-yl]-4-methylbenzoate

20

25

30

A round bottom flask containing methyl 3-[4-[(2,4-difluorobenzyl)oxy]-5-iodo-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoate (2.50 g, 4.88 mmol) in N, N-dimethylformamide was evacuated and flushed with argon. Tributyl(vinyl)tin (2.3 g, 7.3 mmol) and dichlorobis(triphenylphosphine) palladium (II) (0.34 g, 0.49 mmol) were added in the nitrogen atmosphere of a glove box. Heated at 60°C under argon overnight. Added additional tin (0.7 mL) and palladium (0.17 g) reagents and continued over weekend. No progress observed. Distilled DMF, washed crude product with ethyl acetate, and filtered through

celite. The filtrate was concentrated and purified by flash column using 25% ethyl acetate in hexane as eluent. Used without further purification.

1

5 Step 3: Preparation of methyl 3-[4-[(2,4-difluorobenzyl)oxy]-5-ethyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoate

10 A solution of methyl 3-[4-[(2,4-difluorobenzyl)oxy]-6oxo-5-vinylpyrimidin-1(6H)-yl]-4-methylbenzoate (from Step2) (1.0 g) in EtOH (20 mL) was purged with N_2 . 10% Pd/C (0.22 g) was added and the chamber was alternately evacuated and purged with H_2 (3x). Reaction at 25 psi was checked by mass spectrometry at 4h but no product was detected. Added 15 additional 10% Pd/C (0.36 g) and stirred at 32 psi overnight. Very little starting material remained. Crude product was filtered through celite, rinsed with ethyl acetate, and concentrated. This residue was dissolved in a small amount of ethyl acetate by heating; hexane was added and the mixture 20 left in the fridge overnight. The precipitate was filtered and washed with cold ethyl acetate and hexane. The product was obtained as a yellow solid (0.58 g, 58%) and used without further purification. ^{1}H NMR (CD₃OD/ 400MHz) $\delta 8.17$ (s, 1H), 25 8.06 (m, 1H), 7.90 (s, 1H), 7.57 (q, 1H, J = 8.4 Hz), 7.53 (d, 1H, J = 8.0 Hz), 7.00 (m, 2H), 5.52 (s, 2H), 3.90 (s, 3H), 2.51 (q, 2H, J = 7.6 Hz), 2.18 (s, 3H), 1.06 (t, 3H, J = 7.6Hz). ESHRMS m/z 415.1460 (M+H calculated for $C_{22}H_{21}F_2N_2O_4$ requires 415.1464).

30

Step 4: Preparation of 3-[4-[(2,4-difluorobenzyl)oxy]-5-ethyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoic acid

To a suspension of methyl 3-[4-[(2,4-difluorobenzyl)oxy]5 5-ethyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoate (from Step
3) (0.58 g, 1.40 mmol) in dioxane (2 mL) was added 2N NaOH
(1.05 mL, 2.10 mmol). Stirred at ambient temperature for 2h.
Cooled reaction mixture (0°C), added 5% citric acid to
precipitate the product, filtered solid, washed with water,
and dried in vacuo. Obtained the product as a pale yellow
solid (0.53 g, 95%). Used without further purification.

Step 5: Preparation of the title compound

15 To a cooled solution $(0^{\circ}C)$ of 3-[4-[(2,4difluorobenzyl)oxy]-5-ethyl-6-oxopyrimidin-1(6H)-yl]-4methylbenzoic acid (from Step 4) (0.25 g, 0.62 mmol) and 4methylmorpholine (0.10 mL, 0.94 mmol) in DMA (2 mL) was added isobutyl chloroformate (0.12 mL, 0.94 mmol). Stirred 5 min at 0°C, 30 min at ambient temperature. Added (R)-(-)-2-amino-1-20 propanol (0.07 mL, 0.94 mmol) and DMAP (0.02 g, 0.12 mmol) to the cooled (0°C) reaction mixture. Stirred at ambient temperature for 3h. Purified crude product by preparatory HPLC using a 10-90% CH₃CN/H₂O (30 min) gradient containing 0.5% TFA at a flow rate of 80 mL/min. Appropriate fractions (M+H 25 m/z = 458) were combined and concentrated to approximately 20 mL under reduced pressure. Added 5% NaHCO3 (20 mL) and extracted with DCM $(3 \times 15 \text{ mL})$. The organic extracts were dried over Na₂SO₄, filtered, concentrated under reduced pressure, and dried in vacuo to give the desired product as an 30 off-white foam (0.20 g, 70%). ¹H NMR (CD₃OD/ 400MHz) δ 8.18 (s, 1H), 7.90 (m, 1H), 7.73 (m, 1H), 7.57 (q, 1H, J = 8.4 Hz),

7.50 (d, 1H, J = 8.0 Hz), 7.01 (m, 2H), 5.52 (q, 2H, J = 12.4 Hz), 4.16 (m, 1H), 3.57 (m, 2H), 2.21 (q, 2H, J = 7.6 Hz), 2.17 (s, 3H), 1.22 (m, 3H), 1.05 (t, 3H, J = 7.2 Hz). ESHRMS m/z 458.1855 (M+H calculated for $C_{24}H_{26}F_2N_3O_4$ requires 458.1886).

5

Preparation of $3-[4-[(2,4-\text{difluorobenzyl}) \circ xy]-5-\text{ethyl-6-}$ oxopyrimidin-1(6H)-yl]-N-(2-hydroxyethyl)-4-methylbenzamide.

10

The title compound was prepared using a procedure similar to that used in Step 5 of the synthesis of 3-[4-[(2,4-difluorobenzyl)oxy]-5-ethyl-6-oxopyrimidin-1(6H)-yl]-N-[(1R)-2-hydroxy-1-methylethyl]-4-methylbenzamide by substituting ethanolamine for <math>(R)-(-)-2-amino-1-propanol. ¹H NMR (CD₃OD/400MHz) $\delta 8.19$ (s, 1H), 7.90 (m, 1H), 7.73 (s, 1H), 7.57 (q, 1H, J=8.4 Hz), 7.51 (d, 1H, J=8.0 Hz), 7.00 (m, 2H), 5.51 (q, 2H, J=12.4 Hz), 3.69 (t, 2H, J=6.0 Hz), 3.48 (t, 2H, J=12.4 Hz), 3.69 (t, 2H, J=12.4 Hz), 3.48 (t, 2H, J=12.4 Hz), 2.51 (q, 2H, J=12.4 Hz), 2.17 (s, 3H), 1.05 (t, 3H, J=12.4 Hz). ESHRMS m/2 444.1704 (M+H calculated for $C_{23}H_{24}F_{2}N_{3}O_{4}$ requires 444.1729).

Preparation of 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-(methylamino)-6-oxopyrimidin-1(6H)-yl]-N,4-dimethylbenzamide.

$$O = \bigcup_{NH} \bigcup_{N} \bigcup_{N}$$

Step 1: Preparation of methyl 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-(methylsulfonyl)-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoate

To a mixture of methyl 3-[4-[(2,4-difluorobenzyl)oxy]-2-10 (methylthio) -6-oxopyrimidin-1(6H)-yl]-4-methylbenzoate (0.99 g, 2.29 mmol) in DCM (5 mL) was added NBS (0.43 g, 2.40 mmol). After 2h at ambient temperature, added mCPBA (0.40 g, 2.29 mmol). Added an additional aliquot of mCPBA (0.40 g, 2.29 mmol) after 30 min. After another 1.5h, added additional 15 mCPBA (0.20 g, 1.14 mmol) and stirred overnight at ambient temperature. Washed with water (~10 mL) and extracted in DCM. Crude extracts purified by flash column chromatography using 50% ethyl acetate/hexane as eluent. Appropriate fractions combined, concentrated under reduced pressure, and dried in vacuo to give the desired product as a yellow foam (0.89 g, 20 72%). ¹H NMR (CD₃OD/ 400MHz) $\delta 8.04$ (m, 1H), 7.94 (s, 1H), 7.60 (q, 1H, J = 8.0 Hz), 7.46 (d, 1H, J = 8.0 Hz), 7.02 (m, 2H),5.59 (s, 2H), 3.87 (s, 3H), 3.13 (s, 3H), 2.16 (s, 3H). ESHRMS m/z 543.0030 (M+H calculated for C₂₁H₁₈BrF₂N₂O₆S requires 543.0032). 25

Step 2: Preparation of methyl 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-(methylamino)-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoate

5

25

Methyl 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-(methylsulfonyl)-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoate (from Step 1) (0.35 q, 0.64 mmol), DMAP (0.01 q, 0.06 mmol), 10 and methylamine (0.97 mL of a 2M solution in THF, 1.93 mmol) were combined and stirred at ambient temperature. Reaction complete after 4h. Washed with 5% citric acid, extracted in DCM, dried over Na₂SO₄, filtered, concentrated, and dried in vacuo to give a brown film. Dissolved in a small amount of DCM, added hexane, and cooled. Filtered precipitate and 15 washed with a solution of cold 50% DCM/hexane. Dried resulting white solid in vacuo (0.22 g, 69%). ¹H NMR (CD₃OD/ 400MHz) $\delta 8.04$ (m, 1H), 7.77 (s, 1H), 7.58 (q, 1H, J = 8.8 Hz), 7.53 (d, 1H, J = 8.4 Hz), 6.99 (m, 2H), 5.52 (s, 2H), 3.87 (s, 20 3H), 2.84 (s, 3H), 2.10 (s, 3H). ESHRMS m/z 494.0523 (M+H calculated for $C_{21}H_{19}BrF_2N_3O_4$ requires 494.0522).

Step 3: Preparation of methyl 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-(methylamino)-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoate

$$O = O + N + N + O + F$$

To a mixture of methyl 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-(methylamino)-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoate (from Step 2) (0.25 g, 0.51 mmol) in dioxane

5 (2 mL) was added 2N NaOH (0.76 mmol). The reaction mixture was stirred at ambient temperature for 1.5h, cooled (0°C), and solid precipitated by the addition of 5% citric acid. The precipitate was filtered, washed with water, and dried in vacuo to give the desire product as a beige solid (0.21 g,

10 84%). H NMR (CD3OD/ 400MHz) \delta 8.05 (m, 1H), 7.76 (s, 1H), 7.58 (q, 1H, J = 8.8 Hz), 7.51 (d, 1H, J = 8.0 Hz), 6.99 (m, 2H),

5.52 (s, 2H), 2.84 (s, 3H), 2.10 (s, 3H). ESHRMS m/z 480.0403 (M+H calculated for C20H17BrF2N3O4 requires 480.0365).

15 Step 4: Preparation of the title compound

To a cooled (0°C) solution of methyl 3-[5-bromo-4-[(2,4difluorobenzyl) oxy] -2- (methylamino) -6-oxopyrimidin-1(6H) -yl] -4-methylbenzoate (from Step 3) (0.18 q, 0.38 mmol) in N, Ndimethylacetamide (2 mL) was added isobutyl chloroformate 20 (0.60 mL of a stock solution prepared 0.1 mL in 0.9 mL DCM, 0.46 mmol) and 4-methylmorpholine (0.55 mL of a stock solution prepared 0.1mL in 0.9 mL DMA, 0.50 mmol). Stirred at 0°C for 35 min. Added methylamine (0.29 mL of 2M solution in THF, 0.57 mmol). After 1h, distilled DMA and purified the crude product by preparatory HPLC using a 10-90% CH₃CN/H₂O (30 min) 25 gradient containing 0.5% TFA at a flow rate of 80 mL/min. Appropriate fractions (M+H m/z = 494) were combined and concentrated to approximately 20 mL under reduced pressure. Added 5% NaHCO₃ (20 mL) and extracted with DCM (3 x 15 mL). 30 The organic extracts were dried over Na₂SO₄, filtered, concentrated under reduced pressure, and dried in vacuo to give the desired product as a white solid (77 mg, 27%). 1H NMR (CD₃OD/ 400MHz) δ 7.86 (m, 1H), 7.58 (m, 2H), 7.51 (d, 1H, J = 8.0 Hz), 6.98 (m, 2H), 5.52 (q, 2H, J = 12.8 Hz), 2.87 (s, 3H), 2.84 (s, 3H), 2.09 (s, 3H). ESHRMS m/z 493.0659 (M+H calculated for $C_{21}H_{20}BrF_2N_4O_3$ requires 493.0681).

5

Preparation of N-[1-(aminocarbonyl)methyl]-3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-(methylamino)-6-oxopyrimidin-1(6H)-yl]-4-methylbenzamide.

10

25

$$O = \bigvee_{NH} O \longrightarrow F$$

$$O = \bigvee_{NH} O \longrightarrow F$$

$$H_2N$$

The title compound was prepared using a procedure similar to that used in Step 4 of the synthesis of 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-(methylamino)-6-oxopyrimidin-1(6H)-yl]-N,4-dimethylbenzamide by substituting glycineamide HCl for methylamine. 1 H NMR (CD₃OD/ 400MHz) δ 7.94 (m, 1H), 7.68 (s, 1H), 7.59 (q, 1H, J = 8.4 Hz), 7.55 (d, 1H, J = 8.0 Hz), 7.00 (m, 2H), 5.54 (q, 2H, J = 11.6 Hz), 4.00 (s, 2H), 2.86 (s, 3H), 2.12 (s, 3H). ESHRMS m/z 536.0743 (M+H calculated for $C_{22}H_{21}BrF_2N_5O_4$ requires 536.0739).

Preparation of 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-(methylamino)-6-oxopyrimidin-1(6H)-yl]-N-[(2S)-2,3-dihydroxypropyl]-4-methylbenzamide.

The title compound was prepared using a procedure similar to that used in Step 4 of the synthesis of 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-2-(methylamino)-6-oxopyrimidin-1(6H)-yl]-N,4-dimethylbenzamide by substituting (S)-(-)-3-amino-1,2-propanediol for methylamine. ¹H NMR (CD₃OD/ 400MHz) δ 7.89 (m, 1H), 7.56 (m, 3H), 6.98 (m, 2H), 5.52 (q, 2H, J = 12.0 Hz), 3.77 (quintet, 1H, J = 5.2 Hz), 3.50 (m, 3H), 3.36 (m, 1H), 2.83 (s, 3H), 2.10 (s, 3H). ESHRMS m/z 553.0875 (M+H calculated for $C_{23}H_{24}BrF_2N_4O_5$ requires 553.0893).

Preparation of N-allyl-3-[2-(allylamino)-5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4
15 methylbenzamide.

Step 1: Preparation of methyl 3-[5-chloro-4-[(2,4-20 difluorobenzyl)oxy]-2-(methylsulfonyl)-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoate

25

A mixture of methyl 3-[4-[(2,4-difluorobenzyl)oxy]-2-(methylthio) -6-oxopyrimidin-1(6H)-yl]-4-methylbenzoate (2.48 g, 5.73 mmol), NCS (0.84 g, 6.31 mmol), and dichloroacetic acid (~20 drops) in dichloroethane (20 mL) was heated at 60°C overnight. Added mCPBA (0.99 g, 5.73 mmol) and stirred at ambient temperature for 1h. Then, added second equivalent mCPBA (0.99 g, 5.73 mmol). Stirred overnight. Added 10 additional mCPBA (0.49 g, 2.87 mmol) and stirred for ~65h. Added additional mCPBA (0.49 g, 2.87 mmol) and stirred overnight at ambient temperature again. Reaction found to be complete. Washed with 5%NaHCO3, extracted in DCM, dried over Na₂SO₄, filtered, concentrated, and dried in vacuo. Purifired by flash column chromatography using 50% ethyl acetate/hexane 15 as eluent. Obtained clean product as a white solid (1.56 g, 55%). ¹H NMR (CD₃OD/ 400MHz) δ 8.07 (m, 1H), 7.96 (s, 1H), 7.62 (q, 1H, J = 8.0 Hz), 7.48 (d, 1H, J = 8.0 Hz), 7.05 (m, 2H),5.62 (s, 2H), 3.89 (s, 3H), 3.45 (s, 3H), 2.18 (s, 3H). 20 ESHRMS m/z 499.0514 (M+H calculated for $C_{21}H_{18}ClF_2N_2O_6S$ requires 499.0537).

Step 2: Preparation of methyl 3-[2-(allylamino)-5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoate

A mixture of methyl 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-(methylsulfonyl)-6-oxopyrimidin-1(6H)
yl]-4-methylbenzoate (from Step 1) (3.02 g, 6.05 mmol), allyl amine (0.55 mL, 7.26 mmol), and DMAP (0.07 g, 0.61 mmol) in dioxane (8 mL) was stirred at ambient temperature overnight. Observed product and impurity (1:1 ratio). Added ethyl acetate (4 mL), cooled (0°C) the reaction mixture, filtered the precipitate, and dried in vacuo to give the product as a white solid (1.17g, 41%). HNMR (CD₃OD/ 400MHz) δ8.08 (m, 1H), 7.82 (s, 1H), 7.57 (m, 2H), 7.00 (t, 2H, J = 8.8 Hz), 5.80 (m, 1H), 5.51 (m, 2H), 5.07 (m, 2H), 4.56 (s, 1H), 3.93 (m, 1H), 3.89 (s, 3H), 3.65 (s, 3H). ESHRMS m/z 476.1184 (M+H calculated for C₂₃H₂₁ClF₂N₃O₄ requires 476.1183).

Step 3: Preparation of 3-[2-(allylamino)-5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoic acid

To a suspension of methyl 3-[2-(allylamino)-5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-

20

501.1500).

methylbenzoate (from Step 2) (1.59 g, 3.34 mmol) in dioxane (7 mL) was added 2N NaOH (2.51 mL, 5.01 mmol). Stirred at ambient temperature for 1h, cooled (0°C), added 5% citric acid to precipitate the product, filtered precipitate, and dried in vacuo to give the desired compound as a white solid (1.30 g, 84%). 1 H NMR (CD₃OD/ 400MHz) δ 8.08 (m, 1H), 7.81 (s, 1H), 7.56 (m, 2H), 7.00 (t, 2H, J = 8.4 Hz), 5.80 (m, 1H), 5.51 (s, 2H), 5.07 (m, 2H), 3.93 (m, 2H), 2.14 (s, 3H). ESHRMS m/z 462.1006 (M+H calculated for $C_{22}H_{19}ClF_2N_3O_4$ requires 462.1027).

10

Step 4: Preparation of the title compound

To a cooled (0°C) solution of 3-[2-(allylamino)-5-chloro-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4methylbenzoic acid (from Step 3) (0.37 g, 0.80 mmol) in N, Ndimethylacetamide (2 mL) was added isobutyl chloroformate 15 (0.12 mL, 0.96 mmol) and 4-methylmorpholine (0.11 mL, 1.04 mmol). Stirred at 0°C for 5 min, ambient temperature for 30 Added allyl amine (0.09 mL, 1.20 mmol). Stirred at ambient temperature for 2h. Purified by preparatory HPLC 20 using a 10-90% CH₃CN/H₂O (30 min) gradient containing 0.5% TFA at a flow rate of 80 mL/min. Appropriate fractions (M+H m/z = 494) were combined, freeze-dried, and lyophilized. Washed with 5% NaHCO₃ (20 mL) and extracted with DCM (3 \times 15 mL). organic extracts were dried over Na₂SO₄, filtered, concentrated under reduced pressure, and dried in vacuo to give the desired 25 product as a white solid (0.24 g, 60%). ^{1}H NMR (CD₃OD/ 400MHz) $\delta 7.93$ (m, 1H), 7.67 (s, 1H), 7.55 (q, 2H, J = 8.0 Hz), 7.00 (t, 2H, J = 8.8 Hz), 5.90 (m, 1H), 5.80 (m, 1H), 5.51 (m, 2H), 5.21 (m, 1H), 5.09 (m, 3H), 3.95 (m, 4H), 2.14 (s, 3H). ESHRMS m/z 501.1520 (M+H calculated for C₂₅H₂₄ClF₂N₄O₃ requires 30

Preparation of 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methyl-N- $\{1-[(methylamino)carbonyl]methyl\}$ benzamide.

5

difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoic acid (0.8 g, 1.7 mmol) in anhydrous dimethylacetamide (3.2 mL) 10 was added isobutyl chloroformate (0.23 mL, 1.7 mmol) followed by N-methylmorpholine (0.25 mL, 2.2 mmol). The reaction mixture stirred under argon atmosphere at 0° C for 10 min and then at room temperature for 30 min. At which time another equivalent of N-methylmorpholine (0.29 mL, 2.5 mmol) was added 15 to reaction mixture, followed by the addition of glycine methyl amide HCl (0.33 g, 2.5 mmol) and DMAP (ca.). reaction mixture stirred for 2h at room temperature and then diluted with acetonitrile/water (2:1 v/v) to be purified by reverse phase HPLC using a 10-90% acetonitrile in water 20 containing 0.5% TFA (30 min) gradient at a 80 mL/min flow The appropriate fractions (M+H m/z = 521) were collected and concentrated to a reduced volume. The resulting suspension was diluted with dichloromethane (30 mL) and washed with 5% NaHCO₃ (2 X 50 mL). The organic extracts were washed 25 with water (2 X 25 mL) and dried over Na₂SO₄ (anhydrous). organic extracts were concentrated under reduced pressure and dried in vacuo to afford the desired product (364.4 mg, 37%) as a white solid. $^{1}\text{H-NMR}$ (CD₃OD, 400 MHz) δ 8.32 (s, 1H), 7.96

To a cold solution of 3-[5-bromo-4-[(2,4-

(dd, 1H, J= 2 Hz), 7.80 (d, 1H, J= 2 Hz), 7.62 (m, 1H), 7.55 (d, 1H, J= 8.4 Hz), 7.01 (m, 2H), 5.60 (q, 2H, J= 12.4 Hz), 3.98 (s, 2H), 2.74 (s, 3H), 2.20 (s, 3H); ES-HRMS m/z 521.0650 (M+H $C_{22}H_{20}BrF_2N_4O_4$ requires 521.0630).

5

Preparation of 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[(2S)-2,3-dihydroxypropyl]-4-methylbenzamide.

10

15

20

25

The title compound was prepared by a procedure similar to the one described for 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methyl-N-{1-[(methylamino)carbonyl]methyl}benzamide using (S)-(-)-3-amino-1, 2-propanediol (0.162 g 2.5 mmol) as the amine and without the addition of a second equivalent of N-methylmorpholine. After reverse phase HPLC purification, the organic extracts were concentrated under reduced pressure and dried in vacuo to afford the desired product (404.3 mg, 43%) as beige solid. 1 H-NMR (CD₃OD, 400 MHz) δ 8.31 (s, 1H), 7.92 (dd, 1H, J= 2 Hz), 7.76 (d, 1H, J= 1.6 Hz), 7.62 (m, 1H), 7.55 (d, 1H, J= 8 Hz), 7.01 (m, 2H), 5.59 (q, 2H, J= 12.4 Hz), 3.80 (m, 1H), 3.53 (m, 3H), 3.39 (m, 1H), 2.19 (s, 3H); ES-HRMS m/z 524.0630 (M+H

 $C_{22}H_{21}BrF_2N_3O_5$ requires 524.0627).

Preparation of 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[(2R)-2,3-dihydroxypropyl]-4-methylbenzamide.

5

The title compound was prepared by a procedure similar to the one described for 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]- $6-\text{oxopyrimidin}-1(6H)-yl]-4-\text{methyl}-N-\{1-$ 10 [(methylamino)carbonyl]methyl}benzamide using (R)-(+)-3-amino-1, 2-propanediol (0.162 q 2.5 mmol) as the amine and without the addition of a second equivalent of N-methylmorpholine. After reverse phase HPLC purification, the organic extracts were concentrated under reduced pressure and dried in vacuo to 15 afford the desired product (374.5 mg, 40%) as beige solid. H-NMR (CD₃OD, 400 MHz) δ 8.32 (s, 1H), 7.92 (dd, 1H, J= 2 Hz), 7.77 (d, 1H, J=2 Hz), 7.62 (m, 1H), 7.55 (d, 1H, J=8.4 Hz), 7.04 (m, 2H), 5.60 (q, 2H, J= 12.4 Hz), 3.80 (m, 1H), 3.53 (m, 20 3H), 3.39 (m, 1H), 2.19 (s, 3H); ES-HRMS m/z 524.0649 (M+H $C_{22}H_{21}BrF_2N_3O_5$ requires 524.0627).

Preparation of 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-(2-hydroxyethyl)-4-methylbenzamide.

25

The title compound was prepared by a procedure similar to the one described for 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methyl-N-{1-[(methylamino)carbonyl]methyl}benzamide using ethanolamine (0.16 mL 2.5 mmol) as the amine and without the addition of a second equivalent of N-methylmorpholine. After reverse phase HPLC purification, the organic extracts were concentrated under reduced pressure and dried in vacuo to afford the desired product (551.7 mg, 63%) as white solid. 1 H-NMR (CD₃OD, 400 MHz) δ 8.32 (s, 1H), 7.92 (dd, 1H, J= 2 Hz), 7.77 (d, 1H, J= 2 Hz), 7.62 (m, 1H), 7.53 (d, 1H, J= 8 Hz), 7.01 (m, 2H), 5.60 (q, 2H, J= 12.4 Hz), 3.68 (t, 2H), 3.48 (t, 2H), 2.19 (s, 3H); ES-HRMS m/z 494.0518 (M+H C₂₁H₁₉BrF₂N₃O₄ requires 494.0522).

Preparation of N-[(1S)-1-(aminocarbonyl)ethyl]-3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methylbenzamide.

20

15

10

The title compound was prepared by a procedure similar to the one described for 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methyl-N-{1-

[(methylamino)carbonyl]methyl]benzamide using L-alaninamide
5 HCl (0.33 g 2.5 mmol) as the amine. After reverse phase HPLC purification, the organic extracts were concentrated under reduced pressure and dried in vacuo to afford the desired product (370 mg, 40%) as beige solid. ¹H-NMR (CD₃OD, 400 MHz) δ 8.32 (s, 1H), 7.95 (m, 1H), 7.83 (dd, 1H, J= 2 Hz), 7.62 (m, 1H), 7.54 (d, 1H, J= 8.4 Hz), 7.01 (m, 2H), 5.60 (q, 2H, J= 12.4 Hz), 4.55 (m, 1H), 2.19 (s, 3H), 1.46 (dd, 3H J=1.2) ES-HRMS m/z 521.0598 (M+H C₂₂H₂₀BrF₂N₄O₄ requires 521.0630).

Preparation of 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6oxopyrimidin-1(6H)-yl]-N-[(2S)-2-hydroxypropyl]-4methylbenzamide.

The title compound was prepared by a procedure similar to

the one described for 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]6-oxopyrimidin-1(6H)-yl]-4-methyl-N-{1[(methylamino)carbonyl]methyl}benzamide using (S)-(+)-1-amino2-propanol (0.16 mL 2.5 mmol) as the amine and without the
addition of a second equivalent of N-methylmorpholine. After

reverse phase HPLC purification, the organic extracts were
concentrated under reduced pressure and dried in vacuo to
afford the desired product (387.8 mg, 57%) as beige solid. ¹HNMR (CD₃OD, 400 MHz) δ 8.32 (s, 1H), 7.92 (dd, 1H, J= 1.6 Hz),

7.77 (d, 1H, J= 2 Hz), 7.62 (m, 1H), 7.53 (d, 1H, J= 8.4 Hz), 7.01 (m, 2H), 5.59 (q, 2H, J= 12.4 Hz), 3.92 (m, 1H), 3.32 (m, 2H), 2.19 (s, 3H), 1.18 (d, 3H, J= 6.4 Hz); ES-HRMS m/z 508.0661 (M+H $C_{22}H_{21}BrF_2N_3O_4$ requires 508.0678).

5

Preparation of 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-N-[(2R)-2-hydroxypropyl]-4-methylbenzamide.

10

The title compound was prepared by a procedure similar to the one described for 3-[5-bromo-4-[(2,4-difluorobenzyl)oxy]-6-oxopyrimidin-1(6H)-yl]-4-methyl-N-{1-

[(methylamino)carbonyl]methyl]benzamide using (R)-(-)-1-amino-2-propanol (0.16 mL 2.5 mmol) as the amine and without the addition of a second equivalent of N-methylmorpholine. After reverse phase HPLC purification, the organic extracts were concentrated under reduced pressure and dried in vacuo to afford the desired product (377.8 mg, 55%) as beige solid. ¹H-NMR (CD₃OD, 400 MHz) & 8.32 (s, 1H), 7.93 (dd, 1H, J= 1.6 Hz), 7.77 (d, 1H, J= 1.6 Hz), 7.62 (m, 1H), 7.53 (d, 1H, J= 8 Hz), 7.01 (m, 2H), 5.60 (q, 2H, J= 12.4 Hz), 3.93 (m, 1H), 3.32 (m, 2H), 2.19 (s, 3H), 1.18 (d, 3H, J= 6.4 Hz); ES-HRMS m/z 508.0687 (M+H C₂₂H₂₁BrF₂N₃O₄ requires 508.0678).

Preparation of 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoic acid.

To a suspension of 3-[4-[(2,4-difluorobenzyl)oxy]-2methyl-6-oxopyrimidin-1(6H)-yl]-4-methylbenzoic acid (1.0 g, 5 2.6 mmol) in anhydrous acetonitrile (15 mL) was added Nchlorosuccinimide (0.38g, 2.9 mmol) and dichloroacetic acid (0.2 mL, 2.6 mmol). The reaction was heated in oil bath (70° C) overnight under nitrogen. The reaction mixture was 10 concentrated under reduced pressure to remove acetonitrile. The resulting residue was washed with water for 30 min, filtered, and rinsed with water. The white solid (830 mg, 82%) was dried in vacuo. 1 H-NMR (CD₃OD, 400 MHz) δ 8.09 (dd, 1H, J=1.6 Hz), 7.88 (d, 1H, J=2 Hz), 7.56 (m, 2H), 7.01 (m, 2H), 5.57 (s, 2H), 2.16 (s, 3H), 2.13(s, 3H); ES-HRMS m/z15 421.0753 (M+H $C_{20}H_{16}ClF_2N_2O_4$ requires 421.0761).

Preparation of (±) 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-(2-hydroxyethyl)-4-methylbenzamide.

To a cold solution of 3-[5-chloro-4-[(2,4-25 difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-

methylbenzoic acid (4.0 g, 9.5 mmol) in anhydrous dimethylacetamide (20 mL, -20° C) and N-methylmorpholine (1.56 mL, 14.25 mmol) was added a solution of isobutyl chloroformate (1.84 mL, 14.25 mmol) in anhydrous dichloromethane (5 mL). The reaction mixture stirred under nitrogen atmosphere at -20° C for 10 min and then at room temperature for 30 min. which time it was cooled back down to 0° C and ethanolamine (0.86 mL, 14.25 mmol) and DMAP (ca.) were added. mixture stirred for 30 min at 0° C, then at room temperature 10 overnight. The solvent was removed by vacuum distillation and the residue was diluted with acetonitrile/water (1:1 v/v) to be purified by reverse phase HPLC using a 10-90% acetonitrile in water containing 0.5% TFA (30 min) gradient at a 80 mL/min flow rate. The appropriate fractions (M+H m/z = 464) were collected, concentrated to a reduced volume, freeze-dried and lyophilized. The resulting white solid was diluted with dichloromethane (30 mL) and washed with 5% NaHCO3 (2 X 50 mL). The organic extracts were washed with water (2 X 25 mL) and dried over Na₂SO₄ (anhydrous). The organic extracts were 20 concentrated under reduced pressure and dried in vacuo to afford the desired product (2.625 g, 59%) as a white solid. 1 H-NMR (CD₃OD, 400 MHz) δ 7.9 (dd, 1H, J= 2 Hz), 7.69 (d, 1H, J= 2 Hz), 7.62 (m, 1H), 7.55 (d, 1H, J= 8.4 Hz), 7.01 (m, 2H), 5.58 (q, 2H, J= 12.4 Hz), 3.68 (t, 2H, J= 5.6 Hz), 3.46 (t, 2H, J=5.6 Hz), 2.17 (s, 3H), 2.12 (s, 3H); ES-HRMS m/z25 464.1153 (M+H C₂₂H₂₁ClF₂N₃O₄ requires 464.1183).

Preparation of (-) 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-(2-hydroxyethyl)-4-methylbenzamide.

Racemic compound, (±) 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-(2-hydroxyethyl)-4-methylbenzamide (2.5 g), was resolved using a Chiralpak AD-H column, 21 X 250 mm. The sample was dissolved in EtOH (15 mg/mL). The injection volume was 4 mL and the material was eluted using EtOH with a flow rate of 10 mL/min. The fractions with (-) rotation were combined and reduced in vacuo to obtain the desired product (1.12g) as a white solid.

1 h-NMR (CD₃OD, 400 MHz) δ 7.92 (dd, 1H, J= 2 Hz), 7.69 (d, 1H, J= 2 Hz), 7.62 (m, 1H), 7.56 (d, 1H, J= 8.4 Hz), 7.01 (m, 2H), 5.59 (q, 2H, J= 12.4 Hz), 3.70 (t, 2H, J= 5.6 Hz), 3.48 (t, 2H, J= 5.6 Hz), 2.17 (s, 3H), 2.13 (s, 3H); ES-HRMS m/z 464.1166 (M+H C₂₂H₂₁ClF₂N₃O₄ requires 464.1183).

Preparation of (+) 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-(2-hydroxyethyl)-4-methylbenzamide.

20

The title compound was isolated from racemic material, (±)

3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6
oxopyrimidin-1(6H)-yl]-N-(2-hydroxyethyl)-4-methylbenzamide

(2.5g) according to resolution procedure for (-) 3-[5-chloro-

4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-(2-hydroxyethyl)-4-methylbenzamide. The fractions with (+) rotation were combined and reduced in vacuo to obtain the desired product (1.32g) as beige solid. 1 H-NMR (CD₃OD, 400 MHz) δ 7.92 (dd, 1H, J= 2 Hz), 7.69 (d, 1H, J= 2 Hz), 7.62 (m, 1H), 7.56 (d, 1H, J= 8.4 Hz), 7.01 (m, 2H), 5.59 (q, 2H, J= 12.4 Hz), 3.70 (t, 2H, J= 5.6 Hz), 3.48 (t, 2H, J= 5.6 Hz), 2.17 (s, 3H), 2.13 (s, 3H); ES-HRMS m/z 464.1166 (M+H C_{22} H₂₁ClF₂N₃O₄ requires 464.1183).

10

Preparation of (±) 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methyl-N-{1-[aminocarbonyl]methyl}benzamide.

15

20

25

The title compound was prepared by a procedure similar to the one described for (±) 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-(2-hydroxyethyl)-4-methylbenzamide using glycine amide HCl (1.2 g, 10.95 mmol) as the amine and with an addition of a second equivalent of N-methylmorpholine. After reverse phase HPLC purification, the organic extracts were concentrated under reduced pressure and dried in vacuo to afford the desired product (1.79 g, 52%) as white solid. ¹H-NMR (CD₃OD, 400 MHz) δ 7.97 (dd, 1H, J= 1.6 Hz), 7.73 (d, 1H, J= 1.6 Hz), 7.62 (m, 1H), 7.53 (d, 1H, J= 8 Hz), 7.01 (m, 2H), 5.59 (q, 2H, J= 12.4 Hz), 4.01 (d, 2H, J= 1.6 Hz), 2.18 (s, 3H), 2.13 (s, 3H); ES-HRMS m/z 477.1128 (M+H C₂₂H₂₀ClF₂N₄O₄ requires 477.1136).

Preparation of (-)3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methyl-N-{1-[aminocarbonyl]methyl}benzamide.

5

Racemic compound, (\pm) 3-[5-chloro-4-[(2,4difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4methyl-N-{1-[aminocarbonyl]methyl}benzamide (1.7 q), was 10 resolved using a Chiralpak AD-H column, 21 X 250 mm. sample was dissolved in MeOH (10 mg/mL). The injection volume was 4 mL and the material was eluted using EtOH/hexane (80/20 v/v) with a flow rate of 8 mL/min. The fractions with (-) rotation were combined and reduced in vacuo to obtain the 15 desired product (0.50g) as beige solid. ¹H-NMR (CD₃OD, 400 MHz) δ 7.97 (dd, 1H, J= 1.6 Hz), 7.73 (d, 1H, J= 1.6 Hz), 7.62 (m, 1H), 7.57 (d, 1H, J=8 Hz), 7.01 (m, 2H), 5.59 (q, 2H, J=12.4 Hz), 4.01 (d, 2H, J=1.6 Hz), 2.18 (s, 3H), 2.13 (s, 3H), 20 ES-HRMS m/z 477.1141 (M+H $C_{22}H_{20}ClF_2N_4O_4$ requires 477.1136).

Preparation of (+) 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methyl-N-{1-[aminocarbonyl]methyl}benzamide.

25

The title compound was isolated from racemic material, (±)
3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6oxopyrimidin-1(6H)-yl]-4-methyl-N-{1-

5 [aminocarbonyl]methyl}benzamide (1.7g) according to resolution
procedure for 3-(4-(2,4-difluorobenzyloxy)-5-chloro-2-methyl6-oxopyrimidin-1(6H)-yl)-N-(carbamoylmethyl)-4methylbenzamide. The fractions with (+) rotation were
combined and reduced in vacuo to obtain the desired product
10 (0.57g) as beige solid. ¹H-NMR (CD₃OD, 400 MHz) δ 7.97 (dd,
1H, J= 1.6 Hz), 7.73 (d, 1H, J= 1.6 Hz), 7.62 (m, 1H), 7.57
(d, 1H, J= 8 Hz), 7.01 (m, 2H), 5.59 (q, 2H, J= 12.4 Hz), 4.01
(d, 2H, J= 1.6 Hz), 2.18 (s, 3H), 2.13 (s, 3H), ES-HRMS m/z
477.1125 (M+H C₂₂H₂₀ClF₂N₄O₄ requires 477.1136).

15

Preparation of (\pm) 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-4-methyl-N-{1-[(methylamino)carbonyl]methyl}benzamide.

20

The title compound was prepared by a procedure similar to the one described for (±) 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-(2-hydroxyethyl)-4-methylbenzamide using glycine methyl amide HCl (1.77 g, 14.25 mmol) as the amine and with an addition of a second equivalent of N-methylmorpholine. After reverse phase HPLC purification, the organic extracts were concentrated

under reduced pressure and dried *in vacuo* to afford the desired product (1.55 g, 33%) as white solid. $^{1}\text{H-NMR}$ (CD₃OD, 400 MHz) δ 7.97 (dd, 1H, J= 1.6 Hz), 7.73 (d, 1H, J= 1.6 Hz), 7.62 (m, 1H), 7.57 (d, 1H, J= 8 Hz), 7.01 (m, 2H), 5.59 (q, 2H, J= 12.4 Hz), 3.98 (s, 2H), 2.74 (s, 3H), 2.18 (s, 3H), 2.14 (s, 3H); ES-HRMS m/z 491.1262 (M+H C₂₃H₂₂ClF₂N₄O₄ requires 491.1292). Both (+) and (-) atropomers will be resolved and characterized.

Preparation of ± 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-[(2S)-2-hydroxypropyl]-4-methylbenzamide.

15

The title compound was prepared by a procedure similar to the one described for (±) 3-[5-chloro-4-[(2,4difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-(2hydroxyethyl)-4-methylbenzamide using (S)-(+)-1-amnio-2propanol (0.98 mL, 12.45 mmol) as the amine. After reverse 20 phase HPLC purification, the organic extracts were concentrated under reduced pressure and dried in vacuo to afford the desired product (2.13 g, 53%) as white solid. NMR (CD₃OD, 400 MHz) δ 7.93 (dd, 1H, J= 1.6 Hz), 7.69 (d, 1H, J=1.6 Hz), 7.62 (m, 1H), 7.56 (d, 1H, J=8 Hz), 7.01 (m, 2H), 25 5.59 (q, 2H, J= 12.4 Hz), 3.94 (m, 1H), 3.39 (m, 2H), 2.18 (s, 3H), 2.13 (s, 3H), 1.9 (d, 3H, J=6.4 Hz); ES-HRMS m/z478.1308 (M+H $C_{23}H_{23}C1F_2N_3O_4$ requires 478.1340). Both (+) and (-) atropomers will be resolved and characterized.

Preparation of \pm 3-[5-chloro-4-[(2,4-difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-[(2R)-2-hydroxypropyl]-4methylbenzamide.

5

The title compound was prepared by a procedure similar to the one described for (±) 3-[5-chloro-4-[(2,4-

difluorobenzyl)oxy]-2-methyl-6-oxopyrimidin-1(6H)-yl]-N-(2-10 hydroxyethyl)-4-methylbenzamide using (R)-(-)-1-amnio-2propanol (0.98 mL, 12.45 mmol) as the amine. After reverse phase HPLC purification, the organic extracts were concentrated under reduced pressure and dried in vacuo to afford the desired product (2.70 g, 58%) as beige solid. 15 NMR (CD₃OD, 400 MHz) δ 7.93 (dd, 1H, J= 1.6 Hz), 7.69 (d, 1H, J=1.6 Hz), 7.62 (m, 1H), 7.56 (d, 1H, J=8 Hz), 7.01 (m, 2H), 5.59 (q, 2H, J=12.4 Hz), 3.94 (m, 1H), 3.39 (m, 2H), 2.18 (s, 3H), 2.13 (s, 3H), 1.9 (d, 3H, J = 6.4 Hz); ES-HRMS m/z478.1322 (M+H $C_{23}H_{23}ClF_2N_3O_4$ requires 478.1340). Both (+) and (-20

) atropomers will be resolved and characterized.

BIOLOGICAL EVALUATION p38 Kinase Assay

25

Cloning of human p38a:

The coding region of the human p38a cDNA is obtained by PCR-amplification from RNA isolated from the human monocyte cell line THP.1. First strand CDNA is synthesized from total RNA as follows: 2 µg of RNA is annealed to 100 ng of random

hexamer primers in a 10 μ l reaction by heating to 70° C. for 10 minutes followed by 2 minutes on ice. cDNA is then synthesized by adding 1 µl of RNAsin (Promega, Madison Wis.), 2 µl of 50 mM dNTP's, 4 µl of 5X buffer, 2 µl of 100 mM DTT and 1 µl (200 of Superscript IITM AMV reverse transcriptase. Random 5 U) primer, dNTP's and Superscript II™ reagents are all purchased from Life-Technologies, Gaithersburg, Mass. The reaction is incubated at 42° C. for 1 hour. Amplification of p38 cDNA is performed by aliquoting 5 µl of the reverse transcriptase reaction into a 100 µl PCR reaction containing the following: 10 80 μ l dH.sub.2 O, 2 . μ l 50 mM dNTP's, 1 μ l each of forward and reverse primers (50 pmol/ μ l), 10 μ l of 10X buffer and 1 μ l ExpandTM polymerase (Boehringer Mannheim). The PCR primers incorporated Bam HI sites onto the 5' and 3' end of the amplified fragment, and are purchased from Genosys. 15 The sequences of the forward and reverse primers were 5′-GATCGAGGATTCATGTCTCAGGAGAGGCCCA-3' and 5'GATCGAGGATTCTCAGGACTCCATCTCTTC-3' respectively. The PCR amplification is carried out in a DNA Thermal Cycler (Perkin Elmer) by repeating 30 cycles of 94° C. for 1 minute, 60° C. 20 for 1 minute and 68° C. for 2 minutes. After amplification, excess primers and unincorporated dNTP's is removed from the amplified fragment with a WizardTM PCR prep (Promega) and digested with Bam HI (New England Biolabs). The Bam HI digested fragment is ligated into BamHI digested pGEX 2T 25 (PharmaciaBiotech) using T-4 DNA ligase (New plasmid DNA as described by T. Maniatis, England Biolabs) Molecular Cloning: A Laboratory Manual, 2nd ed. (1989). The ligation reaction is transformed into chemically competent E. coli DH10B cells purchased from Life-Technologies following the 30 manufacturer's instructions. Plasmid DNA is isolated from the resulting bacterial colonies using a Promega Wizard miniprep

10

15

20

30

kit. Plasmids containing the appropriate Bam HI fragment are sequenced in a DNA Thermal Cycler (Perkin Elmer) with PrismTM (Applied Biosystems Inc.). cDNA clones are identified that coded for both human p38a isoforms (Lee et al. Nature 372, 739). One of the clones that contained the cDNA for p38a-2 (CSB-2) inserted in the cloning site of PGEX 2T, 3' of the GST coding region is designated pMON 35802. The sequence obtained for this clone is an exact match of the cDNA clone reported by Lee et al. This expression plasmid allows for the production of a GST-p38a fusion protein.

Expression of human p38a

GST/p38a fusion protein is expressed from the plasmid pMON 35802 in E. coli, stain DH10B (Life Technologies, Gibco-BRL). Overnight cultures are grown in Luria Broth (LB) containing 100 mg/ml ampicillin. The next day, 500 ml of fresh LB is inoculated with 10 ml of overnight culture, and grown in a 2 liter flask at 37° C. with constant shaking until the culture reached an absorbance of 0.8 at 600 nm. Expression of the fusion protein is induced by addition of isopropyl b-D-thiogalactosidase (IPTG) to a final concentration of 0.05 mM. The cultures are shaken for three hours at room temperature, and the cells are harvested by centrifugation. The cell pellets are stored frozen until protein purification.

25 Purification of P38 Kinase-alpha

All chemicals are from Sigma Chemical Co. unless noted. Twenty grams of E. coli cell pellet collected from five 1 L shake flask fermentations is resuspended in a volume of PBS (140 mM NaCl, 2.7 mM KCl, 10 mM Na.sub.2 HPO.sub.4, 1.8 mM KH.sub.2 PO.sub.4, pH 7.3) up to 200 ml. The cell suspension is adjusted to 5 mM DTT with 2 M DTT and then split equally into five 50 ml Falcon conical tubes. The cells are

5

10

15

20

25

30

sonnicated (Ultrasonics model W375) with a 1 cm probe for 3x1 minutes (pulsed) on ice. Lysed cell material is removed by centrifugation (12,000 x g, 15 minutes) and the clarified supernatant applied to glutathione-sepharose resin (Pharmacia).

Glutathione-Sepharose Affinity Chromatography

Twelve ml of a 50% glutathione sepharose-PBS suspension is added to 200 ml clarified supernatant and incubated batchwise for 30 minutes at room temperature. The resin is collected by centrifugation (600 x g, 5 min) and washed with 2 x 150 ml PBS/1% Triton X-100, followed by 4 x 40 ml PBS. To cleave the p38 kinase from the GST-p38 fusion protein, the glutathione-sepharose resin is resuspended in 6 ml PBS containing 250 units thrombin protease (Pharmacia, specific activity >7500 units/mg) and mixed gently for 4 hours at room temperature. The glutathione-sepharose resin is removed by centrifugation (600.times.g, 5 min) and washed 2 x 6 ml with PBS. The PBS wash fractions and digest supernatant containing p38 kinase protein are pooled and adjusted to 0.3 mM PMSF.

Mono Q Anion Exchange Chromatography

The thrombin-cleaved p38 kinase is further purified by FPLC-anion exchange chromatography. Thrombin-cleaved sample is diluted 2-fold with Buffer A (25 mM HEPES, pH 7.5, 25 mM beta-glycerophosphate, 2 mM DTT, 5% glycerol) and injected onto a Mono Q HR 10/10 (Pharmacia) anion exchange column equilibrated with Buffer A. The column is eluted with a 160 ml 0.1 M-0.6 M NaCl/Buffer A gradient (2 ml/minute flowrate). The p38 kinase peak eluting at 200 mM NaCl is collected and concentrated to 3-4 ml with a Filtron 10 concentrator (Filtron Corp.).

Sephacryl S100 Gel Filtration Chromatography

The concentrated Mono Q- p38 kinase purified sample is purified by gel filtration chromatography (Pharmacia HiPrep 26/60 Sephacryl S100 column equilibrated with Buffer B (50 mM HEPES, pH 7.5, 50 mM NaCl, 2 mM DTT, 5% qlycerol)). Protein is eluted from the column with Buffer B at a 0.5 ml/minute flowrate and protein is detected by absorbance at 280 nm. p38 kinase containing (detected Fractions by SDSpolyacrylamide gel electrophoresis) are pooled and frozen at -80° C. Typical purified protein yields from 5 L E. coli shake flasks fermentations are 35 mg p38 kinase.

In Vitro Assay

10

15

20

25

30

The ability of compounds to inhibit human p38 kinase alpha is evaluated using two in vitro assay methods. In the first method, activated human p38 kinase alpha phosphorylates a biotinylated substrate, PHAS-I (phosphorylated heat and acid stable protein-insulin inducible), in the presence of gamma $^{32}\text{P-ATP}$ ($^{32}\text{P-ATP}$). PHAS-I is biotinylated prior to the assay and provides a means of capturing the substrate, which is phosphorylated during the assay. p38 Kinase is activated by MKK6. Compounds were tested in 10 fold serial dilutions over the range of 100 μM to 0.001 μM using 1% DMSO. Each concentration of inhibitor is tested in triplicate.

All reactions are carried out in 96 well polypropylene plates. Each reaction well contains 25 mM HEPES pH 7.5, 10 mM magnesium acetate and 50 μ M unlabeled ATP. Activation of p38 is required to achieve sufficient signal in the assay. Biotinylated PHAS-I is used at 1-2 μ g per 50 μ l reaction volume, with a final concentration of 1.5 μ M. Activated human p38 kinase alpha is used at 1 μ g per 50 μ l reaction volume representing a final concentration of 0.3 μ M. Gamma ³²P-ATP is used to follow the phosphorylation of PHAS-I. ³²P-ATP has a

10

15

20

25

30

specific activity of 3000 Ci/mmol and is used at 1.2 μ Ci per 50 μ l reaction volume. The reaction proceeds either for one hour or overnight at 30° C.

Following incubation, 20 ul of reaction mixture transferred to a high capacity streptavidin coated filter (SAM-streptavidin-matrix, Promega) plate prewetted phosphate buffered saline. The transferred reaction mix is allowed to contact the streptavidin membrane of the Promega plate for 1-2 minutes. Following capture of biotinylated PHAS-I with ³²P incorporated, each well is washed to remove unincorporated 32P-ATP three times with 2M NaCl, three washes of 2M NaCl with 1% phosphoric, three washes of distilled water and finally a single wash of 95% ethanol. Filter plates are air-dried and 20 µl of scintillant is added. The plates are sealed and counted.

A second assay format is also employed that is based on p38 kinase alpha induced phosphorylation of EGFRP (epidermal growth factor receptor peptide, a 21 mer) in the presence 33P-ATP. Compounds are tested in 10 fold serial dilutions over the range of 100 µM to 0.001 µM in 1% DMSO. Each concentration of inhibitor is tested in triplicate. Compounds were evaluated in 50 µl reaction volumes in the presence of 25 mM Hepes pH 7.5, 10 mM magnesium acetate, 4% glycerol, 0.4% bovine serum albumin, 0.4mM DTT, 50 µM unlabeled ATP, 25 µg EGFRP (200 µM), and 0.05 µCi 33P-ATP. Reactions are initiated by addition of 0.09 µg of activated, purified human GST-p38 kinase alpha. Activation is carried out using GST-MKK6 (5:1,p38:MKK6) for one hour at 30° C. in the presence of 50 μM ATP. Following incubation for 60 minutes at room temperature, the reaction is stopped by addition of 150 μl of AG 1 x 8 resin in 900 mM sodium formate buffer, pH 3.0 (1 volume resin to 2 volumes buffer). The mixture is mixed three times with pipetting and

5

10

the resin is allowed to settle. A total of 50 µl of clarified solution head volume is transferred from the reaction wells to Microlite-2 plates. 150 µl of Microscint 40 is then added to each well of the Microlite plate, and the plate is sealed, mixed, and counted.

Preferred compounds of the invention exhibit IC50 values of 25 micromolar or less. More preferred compounds of the invention exhibit IC50 values of 10 micromolar or less. Even more preferred compounds of the invention exhibit IC50 values of 5 micromolar or less. Especially preferred compounds of the invention exhibit IC50 values of 1 micromolar or less.

Some representative examples with IC50 values are shown below.

	p38 Alpha
Structure	Avg. IC50 (uM)
Br N	<5.00
D Br O F	<5.00
HN-O Br	<5.00

. TNF Cell Assays

10

15

5 Method of Isolation of Human Peripheral Blood Mononuclear Cells:

Human whole blood is collected in Vacutainer tubes containing EDTA as an anticoagulant. A blood sample (7 ml) is carefully layered over 5 ml PMN Cell Isolation Medium (Robbins Scientific) in a 15 ml round bottom centrifuge tube. The sample is centrifuged at 450-500 x g for 30-35 minutes in a swing out rotor at room temperature. After centrifugation, the top band of cells are removed and washed 3 times with PBS w/o calcium or magnesium. The cells are centrifuged at 400 times gravity for 10 minutes at room temperature. The cells are resuspended in Macrophage Serum Free Medium (Gibco BRL) at a concentration of 2 million cells/mi.

10

20

25

30

LPS Stimulation of Human PBMs

PBM cells (0.1 ml, 2 million/ ml) are co-incubated with 0.1 ml compound (10-0.41 µM, final concentration) for 1 hour in flat bottom 96 well microtiter plates. Compounds are dissolved in DMSO initially and diluted in TCM for a final concentration of 0.1% DMSO. LPS (Calbiochem, 20 ng/ml, final concentration) is then added at a volume of 0.010 ml. Cultures are incubated overnight at 37° C. Supernatants are then removed and tested by ELISA for TNF-a and IL1-b. Viability is analyzed using MTS. After 0.1 ml supernatant is collected, 0.020 ml MTS is added to remaining 0.1 ml cells. The cells are incubated at 37° C. for 2-4 hours, then the O.D. is measured at 490-650 nM.

Maintenance and Differentiation of the U937 Human
15 Histiocytic Lymphoma Cell Line

U937 cells (ATCC) are propagated in RPMI 1640 containing fetal bovine serum, 100 IU/ml penicillin, $100 \mu q/ml$ streptomycin, and 2 mM glutamine (Gibco). Fifty million cells media are terminal in 100 ml induced to differentiation by 24 hour incubation with 20 ng/ml phorbol 12-myristate 13-acetate (Sigma). The cells are washed by centrifugation (200 x g for 5 min) and resuspended in 100 ml fresh medium. After 24-48 hours, the cells are harvested, centrifuged, and resuspended in culture medium at 2 million cells/ml.

LPS Stimulation of TNF production by U937 Cells

U937 cells (0.1 ml, 2 million/ml) are incubated with 0.1 ml compound (0.004-50 μ M, final concentration) for 1 hour in 96 well microtiter plates. Compounds are prepared as 10 mM stock solutions in DMSO and diluted in culture medium to yield a final DMSO concentration of 0.1% in the cell assay. LPS (E

coli, 100 ng/ml final concentration) is then added at a volume of 0.02 ml. After 4 hour incubation at 37° C., the amount of TNF-alpha released in the culture medium is quantitated by ELISA. Inhibitory potency is expressed as IC50 (μM).

5

10

15

20

Rat Assay

The efficacy of the novel compounds in blocking the production of TNF also is evaluated using a model based on rats challenged with LPS. Male Harlen Lewis rats Dawley Co.] are used in this model. Each rat weighed approximately 300 q and is fasted overnight prior to testing. Compound administration is typically by oral gavage (although intraperitoneal, subcutaneous and intravenous administration are also used in a few instances) 1 to 24 hours prior to the LPS challenge. Rats are administered 30 µg/kg LPS [salmonella typhosa, Sigma Co.] intravenously via the tail vein. collected via heart puncture 1 hour after the LPS challenge. Serum samples are stored at -20° C. until quantitative analysis of TNF-alpha by Enzyme Linked-Immuno-Sorbent Assay ("ELISA") [Biosource]. Additional details of the assay are set forth in Perretti, M., et al., Br. J. Pharmacol. (1993), 110, 868-874, which is incorporated by reference in this application.

Mouse Assay

Mouse Model of LPS-Induced TNF Alpha Production

25 TNF alpha is induced in 10-12 week old BALB/c female mice by tail vein injection with 100 ng lipopolysaccharide (from S. Typhosa) in 0.2 ml saline. One hour later mice are bled from the retroorbital sinus and TNF concentrations in serum from clotted blood are quantified by ELISA. Typically, peak levels 30 of serum TNF ranged from 2-6 ng/ml one hour after LPS injection.

The compounds tested are administered to fasted mice by oral gavage as a suspension in 0.2 ml of 0.5% methylcellulose and 0.025% Tween 20 in water at 1 hour or 6 hours prior to LPS injection. The 1 hour protocol allows evaluation of compound potency at Cmax plasma levels whereas the 6 hour protocol allows estimation of compound duration of action. Efficacy is determined at each time point as percent inhibition of serum TNF levels relative to LPS injected mice that received vehicle only.

10

Induction and Assessment of Collagen-Induced Arthritis in Mice

Arthritis is induced in mice according to the procedure set forth in J. M. Stuart, Collagen Autoimmune Arthritis, 15 Annual Rev. Immunol. 2:199 (1984), which is incorporated herein by reference. Specifically, arthritis is induced in 8-12 week old DBA/1 male mice by injection of 50 µg of chick type II collagen (CII) (provided by Dr. Marie Griffiths, Univ. of Utah, Salt Lake City, Utah) in complete Freund's adjuvant 20 (Sigma) on day 0 at the base of the tail. Injection volume is 100 µl. Animals are boosted on day 21 with 50 µg of CII in incomplete Freund's adjuvant (100 µl volume). Animals are evaluated several times each week for signs of arthritis. Any animal with paw redness or swelling is counted as arthritic. Scoring of arthritic paws is conducted in accordance with the 25 procedure set forth in Wooley et al., Genetic Control of Type II Collagen Induced Arthritis in Mice: Factors Influencing Disease Suspectibility and Evidence for Multiple MHC Associated Gene Control., Trans. Proc., 15:180 (1983). Scoring 30 of severity is carried out using a score of 1-3 for each paw (maximal score of 12/mouse). Animals displaying any redness or swelling of digits or the paw are scored as 1. swelling of the whole paw or deformity is scored as 2.

10

Ankylosis of joints is scored as 3. Animals are evaluated for 8 weeks. 8-10 animals per group are used.

The invention and the manner and process of making and using it, are now described in such full, clear, concise and exact terms as to enable any person skilled in the art to which it pertains, to make and use the same. It is to be understood that the foregoing describes preferred embodiments of the invention and that modifications may be made therein without departing from the spirit or scope of the invention as set forth in the claims. To particularly point out and distinctly claim the subject matter regarded as invention, the following claims conclude this specification.